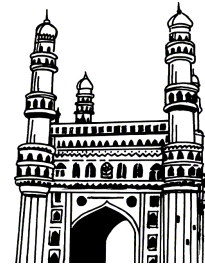


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M.B.A.

I Semester
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ACCOUNTING FOR MANAGEMENT

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I Semester
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**ACCOUNTING FOR
MANAGEMENT**

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ACCOUNTING FOR MANAGEMENT

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UNIT - I

Meaning, Definition and Scope of Financial Accounting; Accounting concepts and conventions, their implications on accounting system – Double Entry Accounting System – Accounting Process – Types of Accounts – Primary and Secondary Record – Preparation of Journal, Ledger Posting Balancing and Preparation of Trial Balance (Including Numerical Problems) - Accounting Equation – Static and Dynamic view - Accounting standards – their rationale and growing importance in global accounting environment, International Financial Reporting Standards (IFRS).

UNIT - II

Distinction between capital and revenue expenditure; Depreciation concept and methods. Preparation and presentation of financial statements – Trading, Profit and loss account, Balance Sheet with adjustments for closing stock, outstanding expenses, accrued income, prepaid expenses, advance income, depreciation, loss/profit on sale, bad debts and provision for bad debts (Including Numerical Problems); provisions of the Indian Companies Act regarding preparation and presentation of financial statements; external auditor's report, the report of the Board of Directors, and voluntary disclosures

UNIT - III

Financial Statement analysis – Ratio analysis – Rationale and utility of ratio analysis – classification of ratios - calculation and interpretation of ratios - liquidity ratios, activity/turn over ratios, Profitability ratios, leverage and structural ratios (Including Numerical Problems) - Advantages and disadvantages; common size statement analysis.

UNIT - IV

Cash Flow Statement – Advantages and Utility of Cash flow statement – Preparation of Cash flow statement (Including Numerical problems) - Tax planning – Tax Avoidance – Tax evasion; Cost concepts – Classification of Costs – preparation of cost sheet (no numericals)

UNIT - V

CVP analysis – Break-even Point, concept of contribution and P/V Ratio, Margin of Safety (Including Numerical problems) - Managerial uses of Break-even concept – product mix, make or buy decision, capacity utilization, plant shut down decision, Standard Costing – Variance Analysis – Material Variances – Labour Variances (Simple Problems Related to Material and Labour Variances Only)

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Frequently Asked & Important Questions

UNIT - I

1. Explain scope of Financial Accounting.

Ans : (June-18, Feb.-17)

Refer Unit-I, Q.No. 2.

2. Explain accounting concepts and conventions.

Ans : (Nov.-20, Aug.-18, June-18)

Refer Unit-I, Q.No. 6.

3. What do you understand by double entry system? Discuss its features.

Ans : (Nov.-20, Feb.-17)

Refer Unit-I, Q.No. 12.

4. Define ledger ? Explain the advantages of ledger.

Ans : (Jan.-18)

Refer Unit-I, Q.No. 21.

5. Distinguish between Journal Vs Ledger.

Ans : (Jan.-20, Imp.)

Refer Unit-I, Q.No. 23.

6. Journalize the following transactions and prepare Ledger Accounts.

- 1. Ram started business with a capital of ` 10,000**
- 2. He purchased goods from Mohan on credit ` 2,000**
- 3. He paid cash to Mohan ` 1,000**
- 4. He sold goods to Suresh ` 2,000**
- 5. He received cash from Suresh ` 1,000**
- 6. He purchased furniture from Mr. Laxman ` 5,000**
- 7. He deposited 2,000 in a bank.**

Ans : (Jan.-19)

Refer Unit-I, Prob. No. 5.

7. Explain about accounting equation.

Ans : (Aug.-18)

Refer Unit-I, Q.No. 27.

8. Discuss the need and importance of accounting standards in global accounting environment.

Ans : (Jan.-19, Jan.-18)

Refer Unit-I, Q.No. 28.

UNIT - II
1. What do you mean by Revenue Expenditure?

Ans : (Jan.-20, June-18, Feb.-17)

Refer Unit-II, Q.No. 1.

2. What do you understand by the concept of depreciation?

Ans : (Jan-18)

Refer Unit-II, Q.No. 2.

3. A certain trading concern acquires an asset for ₹ 10,000 and decides to write off depreciation on it on fixed installment method each year. If the asset is to last for 5 years, show the asset account as well as depreciation account for 3 years. Also show how the asset will appear in the Balance Sheet of the firm at the end of the third year.

Ans : (Jan.-18)

Refer Unit-II, Prob. No. 4.

4. From the following trial balance of a trade on 31st March 2016, prepare trading and profit and loss account for the year ended 31-3-2016 and a balance sheet on that date.

Particulars	Debit (Rs.)	Particulars	Credit (Rs.)
Cash in hand	1200	Capital	60000
Purchase	100000	4% Bank loan	20000
Opening stock	35000	Bills payable	20000
Sundry debtors	50000	Sundry Creditors	24000
Plant and Machinery	60000	Sales	200000
Furniture	15000	Bad debts reserve	1200
Bills receivable	18000	Rent outstanding	1000
Rent and taxes	10000		
Wages	16000		
Wages prepaid	1000		
Salaries	20000		
	326200		326200

Additional Information

1. Create reserve for doubtful debts at 5% on sundry debtors
2. Write off Rs.550 as bad debts
3. Depreciate plant and machinery at 5% and on furniture at 10%.
4. Provide outstanding liabilities : taxes Rs. 2000 and salaries Rs.4000
5. Closing stock Rs.40000

*Ans :***(Jan.-18)**

Refer Unit-II, Prob. No. 19.

5. From the following balance's prepare Trading and Profit and Loss Account and Balance Sheet as on 31st December, 2014.

Particulars	Rs.	Rs.
Capital	--	10,000
Machinery	3,500	--
Debtors	2,700	--
Drawings	900	--
Creditors	--	1,400
Purchases	9,500	--
Wages	5,000	--
Bank	1,500	--
Opening Stock (1-1-2014)	2,000	--
Rent	450	--
Sales	--	14,500
Sundry expenses	200	--
Carriage	150	--
Total	25,900	25,900

Adjustments :

- (i) Closing stock as on 31-12-2014 Rs. 3600
- (ii) Wages outstanding Rs. 200, Sundry expenses outstanding Rs. 100
- (iii) Rent prepaid Rs. 100

*Ans :***(Feb.-17)**

Refer Unit-II, Prob. No. 20.

6. Discuss the provisions relating to maintenance of books of accounts as per Indian companies.

Ans : (July-21, Jan.-20, June-18, Aug.-18, Feb.-17)

Refer Unit-II, Q.No. 26.

UNIT - III

1. What do you mean by Financial Statement analysis? Explain the objectives and need of Financial Statement analysis.

Ans : (June-18)

Refer Unit-III, Q.No. 1.

2. What are the different techniques used to analysis and interpretation of financial statement.

Ans : (Aug.-21, Jan.-20, Nov.-20)

Refer Unit-III, Q.No. 5.

3. What is Ratio Analysis? Explain the objectives of ratio analysis?

Ans : (Aug.-18, Imp.)

Refer Unit-III, Q.No. 6.

4. What are the advantages and limitations of ratio analysis.

Ans : (Aug.-21, Jan.-20, Jan.-19, Imp.)

Refer Unit-III, Q.No. 11.

5. Following are assets and liabilities of Krishna Co. Ltd. as on 31st March, 2016.

Liabilities	(`)	Assets	(`)
Equity capital	5,00,000	Land and buildings	3,50,000
5% debentures	2,00,000	Machinery	2,50,000
Bank loan	1,50,000	Cash in hand	25,000
Creditors	75,000	Cash at bank	55,000
Bills payable	50,000	Debtors	85,000
Outstanding expenses	5,000	Bills receivable	1,05,000
		Stock	1,00,000
		Prepaid expenses	10,000
	9,80,000		9,80,000

Calculate :

- (i) Current ratio
- (ii) Quick ratio
- (iii) Debt to equity ratio
- (iv) Proprietary ratio
- (v) Assets turnover ratio if sales are ` 19,60,000.

Ans : (Aug.-18)

Refer Unit-III, Prob. No. 5.

- 6. Mr. Krishna & Co. presents the following information for the year ended 31 December.**

Credit Sales	Rs. 150000	Cash sales	Rs. 250000
Returns Inwards	Rs. 25000	Opening stock	Rs. 28000
Closing Stock	Rs. 35000		

Find out inventory turnover ratio when gross profit is 20% on sales. Also calculate inventory holding period.

Ans : (June-18)

Refer Unit-III, Prob. No. 6.

- 7. From the following details, prepare a statement of proprietary funds with as many details as possible.**

- A Stock Velocity = 6**
- B Capital turnover = 2**
- C Fixed assets turnover ratio = 4**
- D Gross profit turnover ratio = 20**
- E Debtors velocity = 2 months**
- F Creditors velocity = 73 days**

The gross profit was ` 60,000, Reserves and surplus amounted to ` 20,000, closing stock was ` 5,000 in excess of opening stock.

Ans : (Jan.-18)

Refer Unit-III, Prob. No. 7.

- 8. From the following information, you are required to prepare Balance Sheet.**

(a) Current ratio	1.75
(b) Liquid ratio	1.25
(c) Stock turnover ratio (cost of sales/closing stock)	9
(d) Gross profit ratio	25%
(e) Debt collection period	1.5 months

(f) Reserves and surplus to capital	0.2
(g) Fixed asset turnover ratio (cost of sales)	1.2
(h) Capital gearing ratio (Long term debt to share capital)	0.6
(i) Fixed asset to net worth	1.25
(j) Sales	₹ 12,000

Ans : (Nov.-20)

Refer Unit-III, Prob. No. 8.

9. What do you mean by Common Size Statement analysis? Explain the purpose of common size statement.

Ans : (Jan.-19, Jan.-18)

Refer Unit-III, Q.No. 17.

UNIT - IV

1. What is Cash Flow Statement? What are the advantages of Cash Flow Statement?

Ans : (Nov.-20, Jan.-20, Aug.-18, June.-18, Feb.-17)

Refer Unit-IV, Q.No. 1.

2. 3. From the following information prepare cash flow statement by indirect method of Ram Business Corporation.

Liabilities and Capital	Jan.-1, 2015	31-12-2015	Assets	Jan.-1, 2015	31-12-2015
Share capital	35,000	43,500	Cash and bank	40,000	44,400
Surplus	15,000	19,500	Accounts receivable	10,000	20,700
Bonds payable	22,000	22,000	Inventories	15,000	15,000
Bonds payable discount	(2,000)	(1,800)	Land and building	4,000	4,000
Current liabilities	30,000	20,000	Business premises	20,000	16,000
Bank loan	–	12,000	Plant and equipment	15,000	17,000
			Accumulated depreciation	(5,000)	(2,800)
			Patents and trademarks	1,000	900
	1,00,000	1,15,200		1,00,000	1,15,200

Additional Information

- (i) A building that costs ₹ 4,000 and which had a book value at ₹ 1,000 was sold for ₹ 1,400.
- (ii) The depreciation charge for the period was ₹ 800.
- (iii) There was a ₹ 5,000 issue of capital stock.
- (iv) Cash dividend of ₹ 2,000 and stock dividend of ₹ 3,500 were declared.

Ans : (Aug.-18)

Refer Unit-IV, Prob. No. 3.

3. Define the following terms :

- (i) Tax planning
- (ii) Tax Avoidance
- (iii) Taxevasion

Ans : (Aug.-18, June-18, Feb.-17)

Refer Unit-IV, Q.No. 4.

4. Discuss the application areas of various tax planning and how it is different from avoidance and evasion.

Ans : (Jan.-19)

Refer Unit-IV, Q.No. 5.

5. Explain the proforma of cost sheet.

Ans : (Imp.)

Refer Unit-IV, Q.No. 10.

UNIT - V

1. What do you understand by the term break-even analysis?

Ans : (Aug.-21, Nov.-20, Aug.-18, June-18)

Refer Unit-V, Q.No. 1.

2. What are the Assumptions and Limitations of CVP Analysis?

Ans : (Jan.-20)

Refer Unit-V, Q.No. 2.

3. Explain the term break-even point. How it is determined.

Ans : (Jan.-19)

Refer Unit-V, Q.No. 3.

4. An analysis of cost sheet is as follows:

Cost Element	Variable Cost (% of Sales)	Fixed Cost (`)
Direct material	32.8	—
Direct Labour	28.4	—
Factory overheads	12.6	1,89,900
Distribution overheads	4.1	58,400
General overheads	1.1	66,780

Budgeted Sales ` 18,50,000

You are required to determine:

- (i) Break even sales value**
- (ii) Profit at budgeted sales**
- (iii) Profit if actual sales are drop by 10% and increase by 5% from budgeted sales.**

Ans : (Jan.-20)

Refer Unit-V, Prob. No. 4.

5. From the following details. Find out :

- (i) Contribution per unit**
- (ii) BEP**
- (iii) Margin of safety**
- (iv) Profit**
- (v) Volume of sales to earn a profit of ` 24,000**

Units sold	20,000
Total sales	` 60,000
Total variable cost	` 30,000
Total Fixed cost	` 18,000

Ans : (Jan.-19)

Refer Unit-V, Prob. No. 5.

6. What is make (or) buy decisions?

Ans : (Jan.-19, June-18)

Refer Unit-V, Q.No. 9.

7. Explain the significance of standard costing in managerial decisions.

Ans : (Imp.)

Refer Unit-V, Q.No. 13.

8. Explain the Advantages and dis-advantages of Standard Costing system.

Ans : (Imp.)

Refer Unit-V, Q.No. 14.

9. Define labour variance. Explain different forms of labour variance.

Ans : (Imp.)

Refer Unit-V, Q.No. 19.

UNIT I

Meaning, Definition and Scope of Financial Accounting; Accounting concepts and conventions, their implications on accounting system –Double Entry Accounting System – Accounting Process – Types of Accounts – Primary and Secondary Record– Preparation of Journal, Ledger Posting Balancing and Preparation of Trial Balance (Including Numerical Problems) - Accounting Equation – Static and Dynamic view - Accounting standards – their rationale and growing importance in global accounting environment, International Financial Reporting Standards (IFRS).

1.1 FINANCIAL ACCOUNTING

1.1.1 Meaning, Definition

Q1. Define Financial Accounting.

(OR)

Define Accounting.

(OR)

What is meant by Financial Accounting.

Ans : (Jan.-19, Feb.-17)

Accounting, as an information system is the process of identifying, measuring and communicating the economic information of an organization to its users who need the information for decision making.

Financial accounting is a specialized branch of accounting that keeps track of a company's financial transactions. Using standardized guidelines, the transactions are recorded, summarized, and presented in a financial report or financial statement such as an income statement or a balance sheet.

Financial Accounting covers the preparation and interpretation of financial statements and communication to the users of accounts. It is historical in nature as it records transactions which had already been occurred. The final step of financial accounting is the preparation of Profit and Loss Account and the Balance Sheet. It primarily helps in determination of the net result for an accounting period and the financial position as on the given date.

Definitions

- (i) **Accounting to American Institute of Certified Public Accountants**, is "the art of recording, classifying and summarizing in a significant manner in terms of money, transactions and events which are, in part at least of a financial character, and interpreting the results thereof."
- (ii) **Accounting to American Accounting Association**, is "the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information".
- (iii) **Accounting to Accounting Principles Board (APB)**, is a service activity. Its function is to provide quantitative information, primarily financial nature, about economic entities that is needed to be useful in making economic decisions.
- (iv) **Accounting to H. Bierman and AR Drebin**, may be defined "as the identifying, measuring, recording and communicating of financial information."
- (v) **Accounting to Smith & Ashburne**, is the science of recording and classifying business transactions and events, primarily of a financial character, and the act of making significant summaries, analysis and interpretation of those transactions and events and communicating the results to persons who must make decisions or form judgements."

The Accounting Principles Board (APB) of American Institute of Certified Public Accountants (AICPA) enumerated the

functions of accounting as follows: "The function of accounting is to provide quantitative information, primarily of financial nature, about economic entities, that is needed to be useful in making economic decisions."

1.1.2 Scope

Q2. Explain scope of Financial Accounting.

Ans : (June-18, Feb.-17)

(i) Record Keeping Function

The primary function of accounting relates to recording, classification and summary of financial transactions-journalisation, posting, and preparation of final statements. These facilitate to know operating results and financial positions. The purpose of this function is to report regularly to the interested parties by means of financial statements. Thus accounting performs historical function i.e., attention on the past performance of a business; and this facilitates decision making programme for future activities.

(ii) Managerial Function

Decision making programme is greatly assisted by accounting. The managerial function and decision making programmes, without accounting, may mislead. The day-to-day operations are compared with some predetermined standard. The variations of actual operations with pre-determined standards and their analysis is possible only with the help of accounting.

iii) Legal Requirement Function

Auditing is compulsory in case of registered firms. Auditing is not possible without accounting. Thus accounting becomes compulsory to comply with legal requirements. Accounting is a base and with its help various returns, documents, statements etc., are prepared.

(iv) Language of Business

Accounting is the language of business. Various transactions are communicated through accounting. There are many parties

owners, creditors, government, employees etc., who are interested in knowing the results of the firm and this can be communicated only through accounting. The accounting shows a real and true position of the firm or the business.

Q3. What are the Functions of Accounting? (or)

Elucidate the functions of Accounting.

Ans :

Accounting deals with recording, classifying, summarizing, analyzing and interpreting the financial transactions and communicating the end results to the interested parties.

The functions of accounting are as follows:

(i) Recording

Recording is a primary function of accounting. It mainly deals with recording all the financial transactions of business in a sequential order. All financial transactions are recorded in a book called as 'Journal'. Journal is further divided into many subsidiary books and the number of subsidiary books to be maintained depends upon nature and size of the business.

(ii) Classifying

Classification deals with the organized analysis of recorded data, with an intention to group all the related entries at one place. Ledger account is the book where in all the similar entries are recorded. Ledger contains different accounts on different pages and accordingly related entries are recorded under one particular account. It helps in identifying the total expenditure incurred in one specific account.

(iii) Summarizing

Summarizing includes presenting the classified data in an acceptable and practical manner which is useful to both the internal and the external users of accounting statements. The process of summarizing involves preparing trial balance, income statement and the balance sheet.

(iv) Associated with Financial Transactions

In accounting, only those transactions are recorded which are financial in nature and are in terms of money. Transactions which are not expressed in terms of money and are non-financial in nature are not recorded in the books of account.

(v) Analyzing and Interpreting

Analyzing and interpreting is the last function of accounting. The financial data which was recorded earlier is now being analyzed and interpreted so that it can be effectively used by the end users in making various decisions related to the financial condition and profitability of the business. The data is also useful in preparing the future plans and designing the policies for accomplishing those plans.

(vi) Communicating

When accounting information is thoroughly analyzed and interpreted, it must be communicated in an effective manner to the right person. The accounting information can be communicated by preparing and distributing the accounting reports which includes the income statement and the balance sheet along with some additional information in the form of ratios, graphs, funds flow statement, etc. An accountant must effectively utilize his innovative and imaginative abilities in this process.

Q4. Explain about Advantages and Limitations of Accounting.

Ans :

Advantages

Following are main advantages of accounting:

1. Replacement of Memory

In a large business it is very difficult for a businessman to remember all the transactions. Accounting provides records which will furnish information as and when desired and thus it replaces human memory.

2. Evidence in Court

Properly maintained accounts are often treated as a good evidence in the court to settle a dispute.

3. Settlement of Taxation Liability

If accounts are properly maintained, it will be of great assistance to the businessman in settling the income tax and sale tax liability otherwise tax authorities may impose any amount of tax which the businessman will have to pay.

4. Comparative Study

It provides the facility of comparative study of the various aspects of the business such as profits, sales, expenses etc. with that of previous year and helps the businessman to locate significant factor leading to the change, if any.

5. Sale of Business

If accounts are properly maintained, it helps to ascertain the proper purchase price in case the businessman is interested to sell his business.

6. Assistance to the Insolvent Person

If a person is maintaining proper accounts and unfortunately he becomes insolvent (i.e. when he is unable to pay to his creditors), he can explain many things about the past with the help of accounts and can start a fresh life.

7. Assistance to Various Parties

It provides information to various parties, i.e., owners, creditors, investors, government, managers, research scholars, public and employees and financial position of a business enterprise from their own view point.

8. Facilitate in Raising Loans

Accounting facilitates raising loans from lenders by providing them the required financial information.

9. Assistance to the Management

Accounting assists the management in taking managerial decisions. For example, Projected

Cash Flow Statement facilitates the management to know the future receipts and payments and to take decisions regarding anticipated surplus or shortage of funds.

10. Facilitate Control Over Assets

Accounting facilitates control over assets by providing information regarding Cash Balance, Bank Balance, Stock, Debtors, Fixed Assets, etc.

Limitations

Following are the main limitations of accounting:

1. Records only Monetary Transactions

Accounting records only those transactions which can be measured in monetary terms. Those transactions which cannot be measured in monetary terms as conflict between production manager and marketing manager, efficient management etc., may be very important for a concern but not recorded in the business books.

2. Effect of Price Level Changes not Considered

Accounting transactions are recorded at cost in the books. The effect of price level changes is not brought into the books with the result that comparison of the various years becomes difficult.

For example, the sales to total assets in 2007 would be much higher than in 2002 due to rising prices, fixed assets being shown at cost and not at market price.

3. No realistic information

Accounting information may not be realistic as accounting statements are prepared by following basic concepts and conventions. For example, going concern concept gives us an idea that the business will continue and assets are to be recorded at cost but the book value which the asset is showing may not be actually realisable. Similarly, by following the principle of conservatism the financial statements will not reflect the true position of the business.

4. Personal bias of the Accountant affects the accounting statements

Accounting statements are influenced by the personal judgement of the accountant. He may select any method of depreciation, valuation of stock, amortisation of fixed assets, treatment of deferred revenue expenditure. Such judgement based on integrity and competency of the accountant will definitely affect the preparation of accounting statements.

5. Permits alternative treatments

Accounting permits alternative treatments within generally accepted accounting concepts and conventions. For example, method of charging depreciation may be straight line method or diminishing balance method or some other method. Similarly, closing stock may be valued by FIFO (First-in-First-Out) or LIFO (Last-in-First-out) or average price method. Application of different methods may give different results and results may not be comparable.

6. Profit no real test of managerial performance

Profit earned during an accounting period is the test of managerial performance. Profit may be shown in excess by manipulation of accounts by suppressing such costs as depreciation, advertisement and research and development or taking excess value of closing stock. Consequently real idea of managerial performance may not be available by manipulated profit.

7. Historical in nature

Usually accounting supplies information in the form of Profit and Loss Account and Balance Sheet at the end of the year. So, the information provided is of historical interest and only gives post-mortem analysis of the past accounting information. For control and planning purposes management is interested in quick and timely information which is not provided by financial accounting.

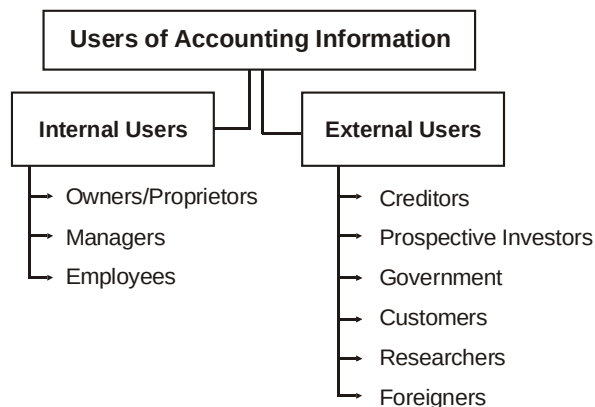
8. Window Dressing in Balance Sheet

When an accountant resorts to window dressing in the Balance Sheet, then Balance Sheet cannot exhibit the true and fair view of the state of affairs of the business.

Q5. Discuss the various users of accounting information.

Ans :

A classification of interested users/groups in accounting information disclosure may be done as under :

**1. Internal Users**

The internal users of accounting information are as follows :

- i) **Owners/Proprietors** : The business is done with a primary objective of making profit. The accounting records reflect the profitability, financial position and the financial soundness of the business. Owners are the sole-traders, partners, shareholders, etc., they refer accounts to know the safety of the amount on their capital.
- ii) **Managers** : In case of large industrial organizations, where the owners and managers are different, the managers are responsible for the day-to-day affair of the business. The accounting records provide the vital information of the performance of the business and analysis, which in turn helps the management to improve the performance by taking corrective actions.
- iii) **Employees** : The employees interested in the job security and the future growth. Both of these are related to the performance of the business.

2. External Users

The external users of accounting information are as follows:

- i) **Creditors** : Creditors are the persons who have extended credit to the company. The creditors include the suppliers of goods and services, bankers and other lenders. The financial statements help them in ascertaining the liquidity position of the business, i.e., the ability to meet the financial obligation, as and when they fall due.
- ii) **Prospective Investors** : A prospective investor is interested in knowing the financial strength of the business. The expected rate of return on investment could be estimated based on the study of the financial statements.
- iii) **Government** : The government is interested in the financial statements from the point of view of taxation, compliance to corporate and labour laws.
- iv) **Customers** : Customers who have developed loyalty to a business, are interested in the continuance of the business. They are also interested in knowing the future plans of the organization with which they can also link their growth.
- v) **Researchers** : Researchers need financial information for testing financial hypothesis and development of theories and models.
- vi) **Foreigners** : The whole world has now become one big market due to modern means of transport and communication. Many foreign agencies and entrepreneurs are interested to

have collaboration with Indian enterprises. Hence, the foreigners are interested to know the profitability and financial position of various enterprises of this country. On the basis of accounting information, the foreigners make up their mind for imports, exports also.

1.2 ACCOUNTING CONCEPTS AND CONVENTIONS, THEIR IMPLICATIONS ON ACCOUNTING SYSTEM

Q6. Briefly explain different accounting concepts and conventions.

(OR)

Explain accounting concepts and conventions.

Ans : (Nov.-20, Aug.-18, June-18)

Accounting Concepts

Accounting is based on few concepts which follows assumptions or rules for recording the transactions. Some important accounting concepts are as follows.

(a) Business Entity Concept

In accounting, proprietor treats its business as a separate entity so that his business transactions does not get mixed up with his personal life. If business and personal activities are mixed up then it would be difficult to derive/draw meaningful accounting information. The separate entity concept is applicable to all forms of business organizations for the accounting purpose. Usually, this concept seems to be unreasonable but it is very useful in drawing out the accounting information.

(b) Going Concern Concept

In this concept, the proprietor assumes that business will continue for a longer period of time in future. There is no intention of winding up the business in the near future. In this concept, accountant values the assets by calculating depreciation on the basis of expected life instead of the market values and

he does not take into account the forced sale value of assets.

(c) Money Measurement Concept

This concept implies that only monetary transactions are taken into consideration at the time of preparation of accounting records. Books of account does not consider any transaction which cannot be expressed in terms of money even though it may be useful for business but it is not recorded in the books of account.

(d) Cost Concept

The cost concept is similar to going concern concept. This concept implies that,

- Only the actual price of the asset is being recorded in books of accounts and,
- This actual cost is considered as a basis for further calculations of asset. This concept explains that an asset is recorded at its cost at the time of purchase but as the time passes on its value gets reduced due to depreciation charged on it. The preparation and presentation of financial statements becomes flawless and impartial with the help of cost concept.

(e) Dual Aspect Concept

The dual aspect concept is a primary concept of accounting, it implies that every business transaction has two-fold effect i.e., dual effect. The double effect of this concept can be expressed in form of an accounting equation as,

$$\text{Capital} + \text{Liabilities} = \text{Assets}$$

or

$$\text{Capital} = \text{Assets} - \text{Liabilities}$$

This equation can also be written as,

$$\text{Equities} = \text{Assets}$$

Hence, accounting equation explains the relationship between equities and assets. It implies that every debit has a credit which is equal to the sum of the debit.

(f) Accounting Period Concept

This concept explains that even though the life of business is very long but proprietor must calculate its position regularly after certain period of time usually after one year, this is known as accounting period. At the end of every accounting period, accountant is supposed to prepare the income statement which displays the profit or loss earned during the accounting period and the balance sheet which shows the financial condition of the business till the last day of the accounting period. During the preparation of the statement, the capital and revenue expenditures must be taken carefully.

(g) Periodic Matching of Costs and Revenue Concept

The matching concept is based on the accounting period concept. According to this concept, a business in order to achieve its prime objective of profit maximization should always maintain a match between the costs and revenue within the accounting period. The term 'matching' refers to the adequate association of related revenues and expenditures.

(h) Realization Concept

According to this concept revenue is generated only through sales. The point of time when the property in goods is passed on to buyer and when he is legally entitled/liable to pay, it is considered as sales. The realization concept is not applicable for hire-purchase and contracts account.

Accounting Conventions

Accounting conventions involves those rituals and practices which helps the accountant in the preparation of accounting statements.

Some of the important accounting conventions are,

(a) Convention of Conservatism

According to this convention, accountant must adopt the policy of playing safe and follow the rule "anticipate no profit but

provide for all possible losses". This implies that accountant must make a provision for all possible or expected losses but unearned or unrealized profit must not be included. When convention of conservatism is used inventory is valued at lower price, either at cost or market price and provision is made for bad or doubtful debts. The main objective of this convention is to misrepresent the true financial position of the company in order to show lower net income and understated assets and liabilities.

(b) Convention of Full Disclosure

According to this convention, financial statements must provide the complete and true information about the company. Financial statements must be prepared in accordance to the laws so that it can be effectively used by proprietors, present and potential creditors and investors. The convention of full disclosure add notes to the accounting statements.

(c) Convention of Consistency

According to this convention, a company must follow same accounting practices and methods from one period to another. Any changing the accounting practices would result in several problems in calculating the true financial position of the company. If suppose for calculating depreciation a company follows a straight line method in one year and diminishing reducing balance method in another year, it becomes difficult to evaluate and compare the true financial position of the company. If any advanced technique is introduced, it must be mentioned clearly in the financial statements.

(d) Convention of Materiality

According to this convention, the accountant must give importance to material details and must avoid unnecessary/unimportant details. Kohler defined "materiality means the characteristic attaching to a statement, fact or item whereby its disclosure or method of giving it expression would be likely to influence the judgement of a reasonable person".

Q7. Explain the characteristics of accounting principles.

Ans :

The characteristics or features of accounting principles are as follows:

1. Reliable, Verifiable and Objective

Accountants are likely to be more reliable, verifiable and objective if they are following the principles of accounting since the accounts based on such principles have the universal acceptability. Verifiability can be done by matching the cost shown in the books with the vouchers and therefore the accounts will be reliable.

2. Consistency

Accountants are expected to be consistent when applying accounting principles, procedures and practices. For example, if a company is using the FIFO method of inventory or stock valuation, the users of the financial statements have every reason to expect that the company is using FIFO method. If the company changes this practice and begins using the LIFO method, then that change must be clearly disclosed.

3. Comparability

The users of accounting statements expect that the financial statements of one company can be compared to the statements of other companies of the same industry. The accounting principles may provide for comparability between the financial statements of different companies.

Q8. Explain the implications of accounting concepts and conventions on accounting system.

Ans :

The following points may highlight the need, importance and implications of accounting concepts in accounting system,

1. Accounting concepts are very useful in making effective business decision.

2. Accounting concepts provide business related information at low cost.
3. Accounting concepts may help the accountants in maintaining clear business or financial reports.
4. The information obtained through accounting concepts helps in business planning.
5. Accounting concepts provides basic rules for maintaining accounts of every business.'

Need/Importance/Implications of Accounting Convention

The following points highlight the need, importance and implications of accounting conventions in accounting system,

1. Accounting conventions act as a lamp to the procedures adopted for collecting, measuring and reporting financial data.
2. Accounting conventions are very useful for common agreements.
3. Accounting conventions of conservatism allow accountant to follow the rule of "anticipate no profit but provide for all possible losses".
4. Accounting conventions helpful in disclosing complete and true information about the company's financial position.'

1.3 DOUBLE ENTRY ACCOUNTING SYSTEM**Q9. Define accounting system.**

Ans :

Accounting system and process includes single entry system, double entry system and transactions of journal and ledger, which are very important for the initial steps of accounting. Single entry system is a system of book-keeping in which, as a rule only records of cash and of personal accounts are maintained, it is always incomplete double entry system.

Double entry system seeks to record every transactions in money in its double aspects. It is a complete record. Accounting process involves accounting equation, accounting terminology, accounting transactions, events, journal and ledger. A Journal is a chronological record of transactions

entered into by a business. Journalizing is the process of recording entries in a journal. Ledger is an analytical record of transaction, as transactions are classified in the ledger.

Accounting equation is another form of dual aspect concept. It is balance concept where assets equal to liabilities. Accounting process involves debit and credit role of different accounts, where debit means increase and credit means decrease. Thus, accounting system and process is the most important parts of accounting.

Popular Way of Classification

There are many ways the system of classification of Book-keeping, which are as follows:

- Single Entry System of Book-keeping
- Double Entry System of Book-keeping.

Q10. What are the features of single entry system.

Ans :

Meaning

Single entry system is an incomplete form of recording financial transactions. It is the system, which does not record two aspects or accounts of all the financial transactions. It is the system, which has no fixed set of rules to record the financial transactions of the business.

Single entry system records only one aspect of transaction. Thus, single entry system is not a proper system of recording financial transactions, which fails to present complete information required by the management. Single entry system mainly maintains cash book and personal accounts of debtors and creditors. Single entry system ignores nominal account and real account except cash account. Hence, it is incomplete form of double entry system, which fails to disclose true profit or loss and financial position of a business organization.

Features

The following are the main features of single entry system:

1. No Fixed Rules

Single entry system is not guided by fixed set of accounting rules for determining the

amount of profit and preparing the financial statements.

2. Incomplete System

Single entry system is an incomplete system of accounting, which does not record all the aspects of financial transactions of the business.

3. Cash Book

Single entry system maintains cash book for recording cash receipts and payments of the business organization during a given period of time.

4. Personal Account

Single entry system maintains personal accounts of all the debtors and creditors for determining the amount of credit sales and credit purchases during a given period of time.

5. Variations in Application

Single entry system has no fixed set of principles for recording financial transactions and preparing different financial statements. Hence, it has variations in its application from one business to another

Q11. Explain advantages and disadvantages of single entry system.

Ans :

Advantages

The following are the important advantages of single entry system:

1. Simple and Easy

Single entry system is simple to understand and easy to maintain as it has no fixed set of principles to follow while recording financial transactions.

2. Economy

Single entry system is an economical system of recording financial transactions. It does not require hiring skilled accounting personnel to record financial transactions of the business. Further, it does not require large number of books to record the limited number of financial transactions.

3. Easy to Calculate Profit

Under single entry system, the amount of profit can be determined easily. The amount of profit or loss of the period can be determined by making comparison between the amounts of closing capital and opening capital.

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4. Suitable for Small Business

The single entry system is simple, easy, and economical system. It is suitable for small businesses because they can not afford the cost of double entry system. Besides, small business are not required to maintain their books of accounts under double entry system.

Disadvantages

The following are the notable disadvantages of single entry system:

1. Unscientific and Unsystematic

The single entry system is unsystematic and unscientific system of recording financial transactions. It does not have any set of fixed rules and principles for recording and reporting the financial transactions.

2. Incomplete System

Single entry system is incomplete system because it does not record the two aspects or accounts of all the financial transactions of the business. It does not maintain any record of the transactions relating to the nominal account and real account except cash account.

3. Lack of Arithmetical Accuracy

Single entry system is not based on the principles of debit and credit. It fails to provide the arithmetical accuracy of the books of accounts. Trial balance can not be prepared under this system to check the arithmetical accuracy of books of accounts.

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4. Does not Reflect True Profit or Loss

Under single entry system, the true amount of profit or loss can not be ascertained because it does not maintain the nominal accounts.

5. Does Not Reflect True Financial Position

The single entry system does not maintain real accounts except cash book. Therefore, it can not reveal the true financial position of the business.

6. Frauds and Errors

The single entry system of book-keeping is incomplete, inaccurate and unscientific. It does not help to check the arithmetical accuracy of the books of accounts. Therefore, there is always a possibility of committing frauds and errors in the books of accounts.

7. Unacceptable for Tax Purpose

The single entry of book keeping has incomplete records of the financial transactions of the business. Hence, the tax office can not accept the account maintained under this system for the purpose of assessment of tax.

Q12. What do you understand by double entry system? Discuss its features.

(OR)

What is double entry system?

Ans : (Nov.-20, Feb.-17)

Double entry also allows for the accounting equation (assets = liabilities + owner's equity) to always be in balance. In our example involving Advertising Expense, the accounting equation remained in balance because expenses cause owner's equity to decrease. In that example, the asset Cash decreased and the owner's capital account within owner's equity also decreased.

A third aspect of double entry is that the amounts entered into the general ledger accounts as debits must be equal to the amounts entered as credits.

Features

The features of double entry system are as follows :

1. Set Rules

Every transaction is recorded as per the set rules of personal, real and nominal accounts. For this purpose every transaction is divided in two parts.

2. Entry in Two Accounts

Each transaction affects two accounts whether it is a cash or credit transaction.

3. Scientific System

Each transaction is divided in two parts which are personal and impersonal and then the rules of these accounts are applied. Since it has certain rules, it can be called as a scientific system.

4. Preparation of Trial Balance

Under double entry system, a trial balance is prepared to check the arithmetical accuracy of the accounts. If the total of debit column is equal to the total of credit column, then it means the accounts are arithmetically accurate.

5. Preparation of Final Accounts

Under double entry system, the final accounts are prepared through which one can know the profit and loss earned during the year. It also tells the final position of the business on the date of preparation of final accounts.

Q13. Explain advantages and disadvantages of double entry system.

Ans : (Nov.-20)

Advantages of double entry system

It has the following advantages :

1. Scientific System

Double entry is treated as a scientific system since there are certain principles and rules of recording the transaction according to which entries are made in the books of accounts.

2. Complete Record of Transactions

All types of transactions whether they are related with personal, real, nominal accounts are recorded in the books of accounts on the basis of specified rules. Thus, it is called a complete system and helps to narrate the transactions in future easily.

3. Knowledge about Different Accounts

This system gives the information and knowledge about the different types of accounts which are maintained in the ledger. Therefore, any information relating to any person, expense or income can easily be obtained.

4. Knowledge about Financial Position

This system also enables the businessman to know the financial position of his business. It also presents the assets and liabilities of the business on a certain date.

5. Elasticity

This system is flexible in nature and it can be expanded or contracted as per the changed requirements of the business. For example, if the number of transactions in the business increases, the subsidiary books can be used.

6. Less Possibility of Fraud and Mistakes

Since this system is scientific in nature, each transaction is recorded on two sides. Thus there is less possibility of fraud, mistakes and misappropriation. In case of any fraud and mistake it can be detected and rectified quickly.

7. Suitable for all types of Businesses

This system can be used for all types of business houses whether they are sole proprietorship firms or partnership firms or joint stock companies. That's why this system of accounting is used throughout the world as it is adequate for all.

8. Comparative Study is Possible

The accounts of current year can be compared with the accounts of previous year

in the double entry system. Thus, the progress of business can be measured along, with accounting. It also helps in controlling the unnecessary expenses.

9. Proof as Evidence

The books prepared under this system are recognised as evidences since they are treated as accurate, reliable and scientific.

10. Facility of Adjustments

Under this system, adjustments relating to unearned incomes, outstanding expenses, prepaid expenses and accrued income, etc. can be made at the end of the year. This helps in ascertaining the true profit or loss and actual financial position of the business.

Disadvantages

The double entry system has the following disadvantages :

1. Costlier System

A number of accounting books such as journal, ledger, cash book and subsidiary journals, etc. are maintained under this system. Therefore this system becomes costlier especially for small business houses.

2. Accounting Errors

Only the arithmetical accuracy of accounts can be checked by preparing the trial balance. But many of accounting errors, like error of omission, error of principle, error of commission and compensating errors may remain takes despite the agreement of trial balance.

3. Requires Practical Knowledge

A person without the knowledge of accounts cannot record and understand the transactions. Therefore, the system needs a well educated, practical and trained professional to maintain and understand the accounts under this system.

Q14. What are the differences between Double Entry System and Single Entry System ?

Ans :

S.No.	Double Entry System	S.No.	Single Entry System
1.	It is a complete and scientific system of book-keeping and dual entries of a transaction should be made in two different accounts.	1.	It is an incomplete unscientific unsatisfactory system of accounting, where each and every transaction is not kept under this system.
2.	All accounts like personal, real and nominal trained by this system.	2.	Only personal accounts and cash book are maintained under this system.
3.	Financial position can be easily ascertained by preparing a Balance sheet, which is cannot be prepared without much records.	3.	Financial position cannot be ascertained, by a Balance sheet because it is prepared with much records.
4.	Under this system, the arithmetical accuracy of the books of accounts can be checked by preparing a Trial balance	4.	Under single entry system the arithmetical accuracy cannot be checked because of a Trial balance cannot be prepared.
5.	This system has statutory recognition and records are maintained under this system. Which are accepted as evidence in the court of law.	5.	This system has no statutory recognition and are normally accepted by the court of law.

1.4 ACCOUNTING PROCESS

Q15. Explain about accounting process/cycle.

Ans :

The process which starts with the transactions taking place and ends up with preparation of final accounts is known as accounting process. This process involves a sequence of activities which are repeated in every accounting period, so it is also known as accounting cycle.

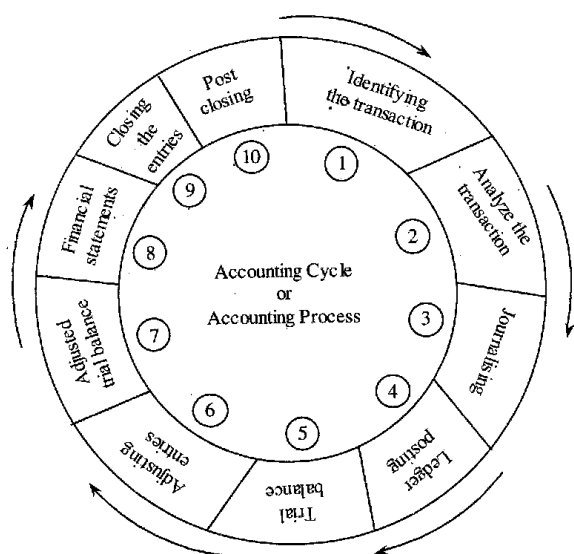


Fig : Accounting Cycle/Process

Various Steps of Accounting Cycle

Following are the steps involved in accounting cycle,

- i) **Identifying Transaction :** The first step in accounting cycle is to identify the transaction and ascertain its source document like purchase order or sales invoice i.e., from where the transaction has been recorded.
- ii) **Analyzing Transaction :** In this step transactions which are expressed in terms of money i.e., monetary transactions and the accounts which are affected by these transactions are identified and analyzed.
- iii) **Journalizing :** After analyzing the transaction they are recorded in journal in the form of

entries. These entries are based on principle of double entry in which every transaction has a two fold effect i.e., dual effect.

- iv) **Ledger Posting :** When all the transactions are journalized they must be posted into ledger account. Ledger is a book wherein similar transactions are being recorded in one particular account.
- v) **Trial Balance :** After posting the entries into ledger the entries must be posted in the trial balance in order to evaluate whether the balance of credit and debit side are equal to each other. All the ledger accounts which has debit balance are recorded in the left column and ledger accounts with credit balance are posted on the right column of the trial balance.
- vi) **Adjusting Entries :** The accrued, deferred and estimated amounts are recorded with the help of adjustment entries. These adjustment entries are journalized and recorded into respective ledger account.
- vii) **Adjusted Trial Balance :** The next step in accounting cycle after adjusting the accrued and deferred accounts is to prepare new trial balance which is similar to unadjusted trial balance with the only difference that the adjusting entries are included in the new trial balance.
- viii) **Financial Statements :** In order to analyze the financial position of the company financial statements are prepared which include,
 - a) **Income Statement :** The income statement is prepared with the help of revenues and incomes earned by the company and losses and expenses incurred by the company.
 - b) **Balance Sheet :** Balance sheet is prepared with the help of assets, liabilities and equity accounts.

- c) **Statement of Retained Earning** : It is prepared by using net income and dividend information.
- d) **Cash Flow Statement** : Either direct or indirect method is used to extract cash flow statement from other financial statements of the company.
- ix) **Closing the Entries** : After the preparation of financial statements the balances of temporary accounts are transferred to owner's equity.
- x) **After-closing Trial Balance** : After closing the entries a new trial balance is prepared in order to verify whether the Debit balance is equal to the credit balance or not.

1.4.1 Types of Accounts

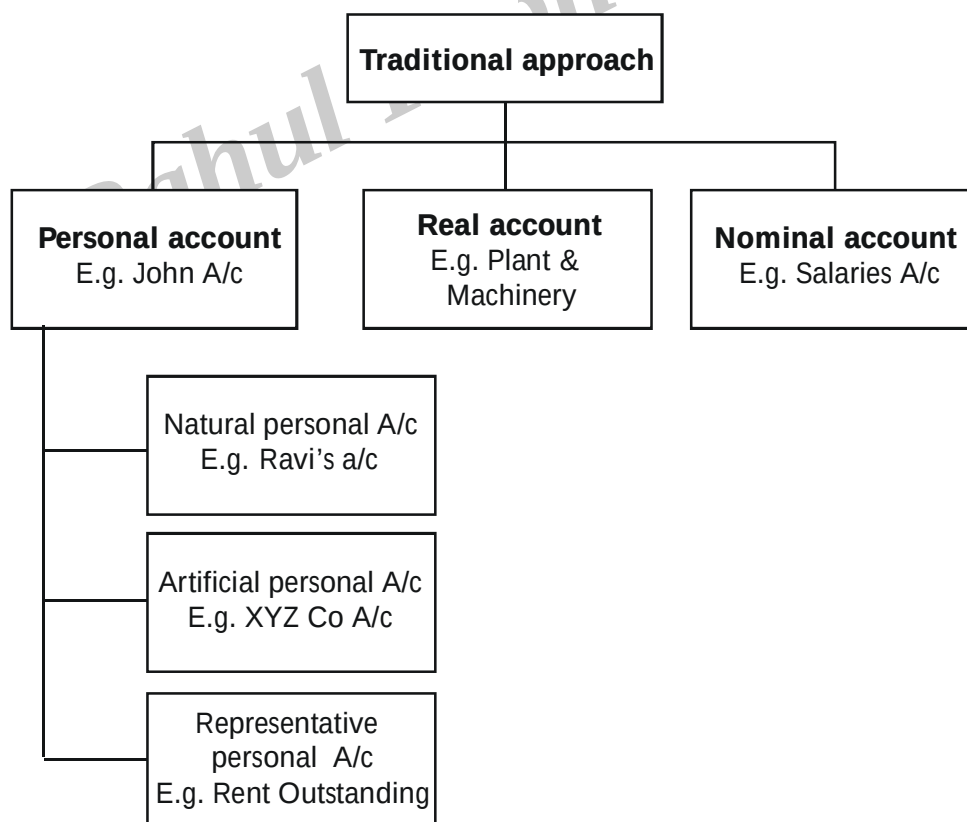
Q16. Briefly describe the classification of accounts.

Ans :

An account is a summary of relevant transaction and events at one place under a particular head. It records the amount of the transactions and also depicts their effect and direction. Classification of accounting is broadly divided into two heads:

1. Classification according to Traditional approach
2. Classification according to accounting equation

I. Classification of Accounts according to traditional approach



A) Personal Account

Account related to individual, banks, firm, companies, etc. are known as personal account. The personal accounts are related to natural person, artificial persons and representative person. It may be classified into three categories:

1. **Natural Personal Account:** Account of individuals (natural person) such as Rakesh a/c is known as natural personal account.
2. **Artificial Personal Account:** Accounts of firms, companies, banks, are artificial accounts. For examples, Tata Groups A/c, Coca Cola Corporation bank A/c.
3. **Representative Account:** The account related to outstanding expenses, prepaid expenses, income received in advance, accrued income is representative personal accounts. For examples, Rent outstanding, insurance Prepaid, Interest due but not paid, etc.

Rule

Debit the Receiver Credit the Giver

B) Real Account

Real Account is related to tangible or intangible assets. Tangible assets are one which can be touch and seen such as building, plant, cash etc. Intangible assets are related to intangible objects which neither be touched or seen. For example, goodwill, trademarks, etc.

Rule

Debit what comes in Credit what goes out

C) Nominal Account

The account related to income, expense, losses, and gains are classified as nominal accounts. For examples, wage accounts, salaries account, etc.

Rule

Debit all expenses and losses Credit all incomes and gains (or) profits

II. Classification of account according to Accounting Equations

There are five types of accounts:

1. **Assets A/c :** It relates to tangible or intangible assets. Ex. Plant A/c
2. **Liabilities A/c :** These accounts represent the final obligation of the enterprise towards outsiders. Ex. Trade creditors, bills payable
3. **Capital A/c :** These accounts relates to owners of an enterprise. Ex. Capital A/c, Drawings A/c
4. **Revenue A/c :** These accounts relate to amount earned by the enterprise by rendering goods and services. Ex. Sales A/c, Discount received A/c
5. **Expense A/c :** These accounts relate to the amount of loss or incurred in the process of earning revenue. Ex. Purchase A/c, Loss by Theft A/c.

1.5 PRIMARY AND SECONDARY RECORD

Q17. Write about primary and secondary record.

Ans :

Primary and Secondary Record/Books

Books of account refer to the records or books in which all financial information (transactions) of a business or an entity is recorded and maintained. For example, a journal is a book of account because it is used to record financial information of a business. Similarly, sales ledger account, purchase ledger account, cash book, general journal, purchase journal etc are examples of books of accounts.

The process of recording financial information or transactions in the books of account is known as bookkeeping. Whereas, the person that records the financial information of a business in the books of account is called bookkeeper.

Books of account are the records of transactions or financial information of a business, are important for a business's decision making, strategies formulating, evaluating the financial performance and making sure that business is complying with the rules of regulatory bodies.

Examples

Books of account are mainly consist of Books of original entries and Books of secondary entries.

A) Books of Original Entries Contain

1. General journal or Day book - For recording general double entries.
2. Sales Journal or Sales day book - For recording credit sales.
3. Purchase journal or purchase day book - For recording purchases on credit.
4. Sales return journal or sale return day book - For recording sales return.
5. Purchase return journal or purchase return day book - For recording purchases return.

6. Cash receipts journal - For recording all kind of cash receipts.
7. Cash payments journal - For recording all kind of cash payments.
8. Cash book - For recording cash receipts and payments.

B) Books of Secondary Entries Include

Main ledger accounts such as debtor control account, creditor control account, building account, depreciation account, rent account, sales account, purchases account etc.

Subsidiary ledger accounts such as debtors accounts, creditors accounts, stock account and other ledger accounts to keep memorandum. These all journals and ledger accounts are collectively referred to as books of account.

Benefits

The main benefit of ledger account is it helps to summarize and group together different transactions related to the same item or person which is helpful in preparing financial statements because while preparing financial statement we need the total increase or decrease in an item or a person account during an accounting period. For example if you think of sales, while preparing income statement we would be interested in total amount of sales made during this accounting year and this figure can be extracted from sales account.

1.6 PREPARATION OF JOURNAL

Q18. What is journal ? Explain the objectives of journal.

Ans : (June-18)

A journal is known as a primary book of accounts or a book of original entry. With the increase in the size of business, the number of business transactions also increases. It is very difficult for a human-being to remember all those transactions. Therefore, to overcome this drawback, journal is prepared. Although, as stated above, the transactions can be recorded directly in the ledger. But such procedure will be cumbersome and confusing. Under this process, it will be very difficult

to locate a transaction after several recordings. But in journal, the transactions can easily be located as it provides chronological record of transactions.

Definitions

- (i) **According to Carter says**, "The journal or daily record as originally used, is a book of prime entry in which transactions are copied in order of date from a memorandum or a waste book. The entries as they are copied, classified into debit and credit, so as to facilitate their being correctly posted afterwards in the ledger."
- (ii) **According to L.C. Cropper**, "A journal is a book employed to classify or sort out transactions in a form convenient for their subsequent entry in the ledger."
- (iii) **According to Roland**, "Journal means a day book, diary or a log book. It is called prime subsidiary book of double entry system."

Objectives

The following are the objectives and importance of journal:

1. Complete Record of Each Transaction

Date-wise complete record of each business transaction is recorded in the journal. Summary of each transaction is also written which is known as narration. This narration is helpful in getting full information about the transaction.

2. As a Proof

Journal is treated as a proof in the eye of the court for settling down the disputes among two or more parties. In some countries like France, Italy, Germany, etc. it is mandatory to prepare ledger.

3. Ledger Hosting

To prepare ledger from the journal is easier than preparing directly from vouchers or memorandum book. Chances of mistakes or errors are very less when we post the entries in the ledger from journal.

4. Correct Knowledge

Each and every transaction is recorded by debiting and crediting two accounts. This helps in knowing which two accounts are affected by the transaction.

Q19. Explain the Proforma (or) Format of Journal

Ans :

JOURNAL

Date	Particulars	Ledger	Amount	Amount
		Folio	Dr.	Cr.

The description of the above columns is as follows :

- 1. **Date:** The date on which a particular transaction takes place is recorded here. The year is written on the top and the month and dates are written afterwards.
- 2. **Particulars:** The two aspects of transactions, i.e., debit and credit are recorded in first two lines. Every debit aspect is written in the first line with a word 'Dr.' at the end of column. The second line

starts with 'To' and the credit aspect is written in this line. The second line starts a few spaces away from the margin of the first line. 'Cr.' is not written at the end of this column.

3. **Ledger Folio or L.F:** Ledger folio is the page number of the ledger on which the corresponding entry is posted. It shows whether an entry has been posted or not. If a page number does not appear against an entry, it indicates that the entry has not been posted to ledger.
4. **Debit Amount:** The amount to be debited is recorded against debit amount in this column.
5. **Credit Amount:** The amount to be credited is recorded against credit amount in this column.

Q20. Explain the Procedure of Journalizing.

Ans :

The procedure of journalizing is as follows :

1. Nature of Transaction

First of all, we should see or classify the nature of transaction from the business point of view. Whether it has taken place or not, whether it can be expressed in money or money's worth or not and the effect of transaction on the business.

2. Selection of Two Aspects of Accounts

In the next step, where two or more accounts will be affected by the transaction are, selected.

3. To Know the Type of Accounts

Afterwards, the type of selected accounts is determined, whether they are personal or real or nominal.

4. To Determine the Effect of Account

After selecting the type of account, the effect of account is determined, i.e., whether the items are coming in or going out of the business or business is the receiver or giver, or whether business has made expenses or earned income, etc.

5. Application of Rules

At the end, the rules of journalizing are applied as per their type and effect.

PROBLEMS

1. Journalize the following transactions :

2008		Rs.
July 1	Opened a bank account	50,000
5	Purchased goods for cash	5,000
10	Purchased machinery from A	15,000
12	Paid wages	500
13	Goods sold to B for cash	2,000
15	Paid electricity bill	200
18	Paid to A on account	5,000
20	Sold old newspapers	50

Sol :

Journal

Date	Particulars	L.F.	Dr. Amount	Cr. Amount
2008				
July 1	Bank A/c Dr. To Cash A/c (Being an account opened with bank)		50,000	50,000
July 5	Purchases A/c Dr. To Cash A/c (Being goods purchased for cash)		5,000	5,000
July 10	Machinery A/c Dr. To A A/c (Being machinery purchased from A)		15,000	15,000
July 12	Wages A/c Dr. To Cash A/c (Being wages paid)		500	500
July 13	Cash A/c Dr. To Sales A/c (Being goods sold for cash)		2,000	2,000
July 15	Electricity bill A/c Dr. To Cash A/c (Being electricity bill paid)		200	200
July 18	A A/c Dr. To Cash A/c (Being amount paid to A for purchase of machinery)		5,000	5,000
July 20	Cash A/c Dr. To Newspaper A/c (Being old newspaper sold)		50	50

2. Journalize the following :

- (i) Commercial business with each ` 30,000.
- (ii) Paid cost ` 500
- (iii) Purchased goods for each ` 15,000 and for credit ` 10,000 from Somesh.
- (iv) Bought motor cycle for ` 6,000
- (v) Cash worth ` 5,000 were taken away by the proprietor for his personal use.

Sol :

(Aug.-18)

Journal Entries

Date	Particulars	L.F	Debit (`)	Credit (`)
(i)	Cash A/c Dr. To Capital A/c (Being business commenced with cash)		30,000	30,000
(ii)	Rent A/c Dr. To Cash A/c (Being rent paid through cash)		500	500
(iii)	Purchases A/c Dr. To Cash A/c To Somesh A/c (Being goods purchased from Somesh (cash ` 15,000 and credit ` 10,000))		25,000	15,000 10,000
(iv)	Motor Cycle A/c Dr. To Cash A/c (Being motor cycle purchased through cash)		6,000	6,000
(v)	Drawings A/c Dr. To Cash A/c (Being cash withdrawn from office for personal use)		500	500

3. Journalize the following transactions:

- 1. Paid wages Rs. 500 and salaries Rs. 1,000 and rent Rs. 1,000.
- 2. Bought goods from A Rs. 10,000 and paid the half amount in cash.
- 3. Cash received from B Rs. 2,900 and allowed him a discount of Rs. 100.
- 4. Withdrew for personal use, cash Rs. 900 and goods Rs. 100.
- 5. Purchased building Rs. 50,000 and furniture for Rs. 10,000 for cash.

Sol :

Journal Entries

Date	Particulars	L.F.	Dr. Amount	Cr. Amount
1.	Wages A/c Dr. Salaries A/c Dr. Rent A/c Dr. To Cash A/c (Being wages, salaries and rent paid in cash)		500 1,000 1,000	2,500
2.	Purchases A/c Dr. To Cash A/c To A A/c (Being goods purchased from A and half the amount paid in cash)		10,000	5,000 5,000
3.	Cash A/c Dr. Discount allowed A/c Dr. To B A/c (Being cash received and discount allowed)		2,900 100	3,000
4.	Drawings A/c Dr. To Cash A/c To Purchases A/c (Being cash and goods withdrawn by proprietor)		1,000	900 100
5.	Building A/c Dr. Furniture A/c Dr. To Cash A/c (Being building and furniture purchased)		50,000 10,000	60,000

1.7 LEDGER POSTING BALANCING**Q21. Define ledger ? Explain the advantages of ledger.**

Ans :

(Jan.-18)

Ledger is a book where the journalized transactions are being classified. Ledger is a set of accounts and includes all the accounts of business i.e., personal, nominal or real.

A company can maintain ledger in two forms i.e., Bound Ledger and Loose-leaf Ledger. The process of transferring the debit and credit items from the journal to the ledger in their respective accounts is known as posting. Posting must be made/done before the preparation of final accounts. The accounts which are active in nature must be updated on the timely basis.

Advantages

The main advantages of ledger are as follows:

1. Knowledge of Business Results

With the help of ledger the important information relating to business can easily be obtained as all the business transactions relating to an item are recorded in the form of separate accounts in the ledger in such a way as their effect on assets, liabilities and capital can easily be understood.

2. Knowledge of Incomes and Expenses

A separate account is opened for each item of income and expense. Thus, it enables to understand that what are the sources of income and where the amount is spent.

3. Helpful in Preparing Trial Balance

Ledger is also helpful in the preparation of trial balance. Without preparing the ledger, trial balance cannot be made.

4. Helpful in Preparing Final Accounts

It is mandatory for the businessman to prepare final accounts. Ledger helps in preparing the final accounts as the total or balances of accounts appear in Trading A/c, P/L A/c and balance sheet.

5. Overcoming the Limitations of Journal

Ledger fulfills all those objects which lack in journal. Journal does not provide complete description of all the transactions relating to an account in classified and summarized form, but the ledger provides it.

Q22. How is posting done in ledger accounting.

Ans :

The bookkeeper posts the transactions from Journal to the Ledger by using any of the following methods,

- (i) Bookkeeper can post any specific side either debit or credit first and post all the transactions of that side in the ledger accounts. For instance, if the credit side is selected then all the entries of the credit side must be posted into the ledger first.
- (ii) Bookkeeper can post entries on basis of specific account and can complete all the debits and credits of that specific account and then move onto the other account.
- (iii) Bookkeeper can post entries in accounts in a sequence of journal entries. This method is effective as entries are posted as and when they are recorded in the journal.

Similar to Ledger Folio (L.F) in journal, a column of folio is prepared in ledger also for recording the page number of journal from which the posting is being done it is called as J.F (Journal Folio). The proforma of a ledger account is as follows,

Dr.				Name of the Account				Cr.			
Date	Particulars	JF	Amount	Date	Particulars	JF	Amount	Date	Particulars	JF	Amount

The following rules and principles should be kept in mind while posting:

1. An account has two sides Debit and Credit. Debit side is marked as Dr. at the top of left hand side and right hand side is marked as Cr. at the top.
2. Name of the account is mentioned at the top in the centre of the account. The account in the centre of it.
3. All postings on debit side starts with 'To' and credit side with 'By'.

4. All transactions relating to an account are recorded at one place in that particular account.
5. The A/c word is not written after the name of personal account.
6. If an account is debited in journal, then posting is made on the debit side of the account in which posting is made with the name and amount appearing in the credit of journal entry and vice-versa.

Q23. Distinguish between Journal Vs Ledger.**Ans :****(Jan.-20, Imp.)**

S.No.	Basis	Journal	Ledger
1.	Meaning	Journal is a primary book wherein all the business transactions are recorded on a daily basis in a systematic manner.	Ledger is a book where the journalized transaction are being classified.
2.	Type of book	It is a book of primary record.	It is a book of final entry.
3.	Process	The process of recording transactions in a journal is called as 'Journalizing'.	The process of recording transactions in a ledger is called as posting.
4.	Organization of data	The organizing of each of the data within journal is known as the transaction.	The organizing of each of the data within ledger is known as the account.
5.	Nature	Journal is not balanced except for the cash book.	Every account in the ledger is balanced.
6.	Accuracy	It is very difficult to test the accuracy of the books.	The availability of lists of balances ensures easy accuracy testing.
7.	Narration	Narration is required for each entry.	Narration is not required.
8.	Record	It maintains the record in sequential manner.	It maintains the record in conclusive manner.
9.	Folio	It includes the ledger folio.	It includes the journal or sub-journal folio.
10.	Preparation of final accounts	It does not facilitate the preparation of final accounts.	It serves as a basis for the preparation of final accounts.
11.	Required information	It does not provide a ready information with relation to any accounts.	It enables easy availability of information with relation to any accounts, as the similar nature are recorded in a specific transactions of group.
12.	Recording transaction	The transactions debit and credit amount are recorded in two adjacent columns.	The transactions debit and credit amounts are recorded in two different sides of two different accounts.
13.	Appearance	Journal includes one debit column and one credit column.	Ledger includes two sides, the left side is known as the debit side and the right side is known as credit side.
14.	Importance	Computerization of accounting eliminates the importance of journal for recording routine transaction such as sales, purchases, etc.	Computerization of accounts cannot eliminate the importance of ledger. Ledger cannot be avoided as it is must.

4. Journalize the following transactions, post them in the concerned ledger accounts and balance the accounts

1997	Particulars	Rs.
Jan. 1	Manoj commenced business with	80,000
" 2	Deposited in bank	75,000
" 5	Bought goods on credit from Srinath	8,000
" 8	Sold goods to Sridhar on credit	10,000
" 10	Purchased machinery, payment made by cheque	25,000
" 12	Paid Srinath - by cheque	6,000
" 16	Received cash from Sridhar	7,500
" 20	Bought Stationery from Govind Venkatesh for cash	300
" 24	Paid Rs. 500 as travelling expenses to Mukesh	
" 27	Bought goods for cash	3,000
" 31	Paid rent to landlord by cheque	400

Sol :

Journal

Date	Particulars	LF No.	Debit Amount	Credit Amount
1997 Jan 1	Cash Account Dr. To Capital Account [Being cash brought into business]		80,000	80,000
Jan 2	Bank Account Dr. To Cash Account [Being cash deposited in bank]		75,000	75,000
Jan 5	Purchases Account Dr. To Srinath's Account [Being goods purchased on credit]		8,000	8,000
Jan 8	Sridhar's Account Dr. To Sales Account [Being goods sold on credit]		10,000	10,000
Jan 10	Machinery Account Dr. To Bank Account [Being machinery purchased]		25,000	25,000
Jan 12	Srinath's Account Dr. To Bank Account [Being cheque issued to Srinath]		6,000	6,000

Jan 16	Cash Account Dr. To Sridhar's Account [Being cash received from Sridhar]	7,500	7,500
Jan 20	Stationery Account Dr. To Cash Account [Being stationery purchased for cash]	300	300
Jan 24	Travelling Expenses Account Dr. To Cash Account [Being travelling expenses paid]	500	500
Jan 27	Purchases Account Dr. To Cash Account [Being goods purchased for cash]	3,000	3,000
Jan 31	Rent Account Dr. To Bank Account [Being rent paid by cheque]	400	400

Ledger Accounts

Dr. Capital Account Cr.

Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997 Jan. 31	To Balance c/d		80,000	1997 Jan. 1	By Cash A/c		80,000
			80,000				80,000
				Jan. 1	By Balance b/d		80,000

Dr. Bank Account Cr.

Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997 Jan. 2	To Cash A/c		75,000	1997 Jan. 10	By Machinery A/c		25,000
				Jan. 12	By Srinath A/c		6,000
				Jan. 31	By Rent A/c		400
				Jan. 31	By Balance c/d		43,600
			75,000				75,000
Feb. 1	To Balance b/d		43,600				

Dr.

Purchases Account

Cr.

Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997				1997			
Jan. 5	To Srinath A/c		8,000	Jan. 31	By Balance c/d		11,000
Jan. 27	To Cash A/c		3,000				
			11,000				11,000
Feb. 1	To Balance b/d		11,000				

Dr.

Sales Account

Cr.

Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997				1997			
Jan. 10	To Balance c/d		10,000	Jan. 8	By Sridhar A/c		10,000
			10,000				10,000
				Feb. 1	By Balance b/d		10,000

Dr.

Srinath Account

Cr.

Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997				1997			
Jan. 10	To Bank A/c		6,000	Jan. 5	By Purchase A/c		8,000
Jan. 31	To Balance c/d		2,000				
			8,000				8,000
				Feb. 1	By Balance b/d		2,000

Dr.

Sridhar Account

Cr.

Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997				1997			
Jan. 10	To Sales A/c		10,000	Jan. 16	By Cash A/c		7,500
				Jan. 31	By Balance c/d		2,500
			10,000				10,000
Feb. 1	To Balance b/d		2,500				

Dr. Machinery Account				Cr.			
Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997 Jan. 10	To Bank A/c		25,000	1997 Jan. 31	By Balance c/d		25,000
			25,000				25,000
Feb. 1	To Balance b/d		25,000				

Dr. Stationery Account				Cr.			
Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997 Jan. 20	To Cash A/c		300	1997 Jan. 31	By Balance c/d		300
			300				300
Feb. 1	To Balance b/d		300				

Dr. Travelling Expenses Account				Cr.			
Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997 Jan. 10	To Cash A/c		500	1997 Jan. 31	By Balance c/d		500
			500				500
Feb. 1	To Balance b/d		500				

Dr. Rent Account				Cr.			
Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997 Jan. 10	To Bank A/c		400	1997 Jan. 31	By Balance c/d		400
			400				400
Feb. 1	To Balance b/d		400				

Dr. Cash Account				Cr.			
Date	Particulars	L.F.	Amount Rs.	Date	Particulars	L.F.	Amount Rs.
1997 Jan. 1	To Capital A/c.		80,000	1997 Jan. 2	By Bank A/c		75,000
Jan. 10	To Sridhar A/c		7,500	Jan. 20	By Stationery		300
				Jan. 24	By Travelling expenses A/c		500
				Jan. 27	By Purchases A/c		3,000
				Jan. 31	By Balance (c/d)		8,700
			87,500				87,500
Feb. 1	To Balance (b/d)		8,700				

5. Journalize the following transactions and prepare Ledger Accounts.

1. Ram started business with a capital of ` 10,000
2. He purchased goods from Mohan on credit ` 2,000
3. He paid cash to Mohan ` 1,000
4. He sold goods to Suresh ` 2,000
5. He received cash from Suresh ` 1,000
6. He purchased furniture from Mr. Laxman ` 5,000
7. He deposited 2,000 in a bank.

Ans :

(Jan.-19)

Journal Entries in the Books of Ram

Date	Particulars	L.F	Debit (`)	Credit (`)
1	Cash A/c Dr. To Capital A/c (Being amount invested for the commencement of business)		10,000	10,000
2.	Purchases A/c..... Dr. To Mohan A/c (Being goods purchased from Mohan on credit)		2,000	2,000
3.	Mohan A/c Dr. To Cash A/c (Being cash paid to Mohan)		1,000	1,000
4.	Suresh A/c Dr. To Sales A/c (Being goods sold to Suresh)		2,000	2,000
5.	Cash A/c Dr. To Suresh A/c (Being cash received from suresh)		1,000	1,000
6.	Furniture A/c Dr. To Mr. Laxman A/c (Being furniture purchased from Mr. Laxman)		5,000	5,000
7.	Bank A/c Dr. To Cash A/c (Being cash deposited in bank)		2,000	2,000

Ledger Accounts

Dr.				Cr.			
Cash A/c							
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
	To Capital A/c		10,000		By Mohan A/c		1,000
	To Suresh A/c		1,000		By Bank A/c		2,000
					By Balance c/d		8,000
			11,000				11,000

Dr.				Cr.			
Capital A/c							
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
	To Balance c/d		10,000		By Cash A/c		10,000
			10,000				10,000
					By Balance b/d		10,000

Dr.				Cr.			
Purchases A/c							
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
	To Mohan A/c		2,000		By balance c/d		2,000
			2,000				2,000
	To Balance b/d		2,000				

Dr.				Cr.			
Mohan A/c							
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
	To Cash A/c		1,000		By Purchase A/c		2,000
	To Balance c/d		1,000				2,000
			2,000		By Balance b/d		1,000

Dr.				Cr.			
Suresh A/c							
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
	To Sales A/c		2,000		By Cash A/c		1,000
					By Balance c/d		1,000
			2,000				2,000
	To Balance b/d		1,000				

Dr.				Cr.			
Sales A/c							
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
	To Balance c/d		2,000		By suresh A/c		2,000
			2,000				2,000
					By Balance b/d		2,000

Dr				Furniture A/c				Cr.			
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)				
	To Mr. Laxman A/c		5,000		By Balance c/d		5,000				
			5,000				5,000				
	To Balance b/d		5,000								

Dr				Bank A/c				Cr.			
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)				
	To Cash A/c		2,000		By Balance c/d		2,000				
			2,000				2,000				
	To Balance b/d		2,000								

Dr				Mr. Laxman A/c				Cr.			
Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)				
	To Balance c/d		5,000		By Furniture A/c		5,000				
			5,000				5,000				
					By Balance b/d		5,000				

6. Prepare journal and post them into ledger.

Date	Particulars	Rs.
2015		
Jan. 1	James started business with cash	5,000
	Furniture	2,000
	Machinery	3,000
	Loan taken from his uncle	5,000
Jan. 3	Goods purchased from Sundaram & Co.	1,000
Jan. 4	Sold goods to Rama Rao	5,000
Jan. 31	Rama Rato became insolvent and hence received only 5% of debt from his property. Remaining amount is taken as bad debt.	

Sol :

(Feb.-17)

Date	Particulars	L.F.	Debit (Amt.)	Credit (Amt.)
Jan. 1	Cash A/c Dr.	—	5,000	
	To Capital A/c			5,000
	(Being cash introduced in the business)			

Jan. 1	Furniture A/c To Cash A/c (Being furniture purchased)	Dr.	—	2,000	2,000
Jan. 1	Machinery A/c To Cash A/c (Being machinery purchased)	Dr.	—	3,000	3,000
Jan. 1	Cash A/c To Loan A/c (Being loan taken from his uncle)	Dr.	—	5,000	5,000
Jan. 3	Purchases A/c To Sundaram & Co. A/c (Being goods purchased from sundaram & co.)	Dr.	—	1,000	1,000
Jan. 4	Rama Rao A/c To Sales A/c (Being goods sold to rama rao)	Dr.	—	5,000	5,000
Jan. 30	Cash A/c Bad debts A/c To Rama Rao A/c (Being insolvency, only 5% debt collected from rama rao)	Dr. Dr.	— —	250 4,750	5,000

Ledger Accounts :

Dr.			Cash A/c			Cr.	
Date	Particulars	Amount	Date	Particulars	Amount		
Jan. 1 st	To Capital	5,000	30-1-15	By Bal. c/d	15,250		
	To Furniture	2,000					
	To Machinery	3,000					
	To Loan A/c	5,000					
	To Rama Rao A/c	250					
		15,250				15,250	
1-2-15	To Balance b/d	15,250					

Dr.			Rama Rao A/c			Cr.	
Date	Particulars	Amount	Date	Particulars	Amount		
Jan 4 th	To Sales	5,000	Jan 30 th	By Cash	250		
			"	By Bad debts	4,750		
		5,000			5,000		

7. Journalize the following transactions and prepare Ledger Account.

Date	Particulars	₹
2000		
Jan. 1	Commenced Business with cash	1,50,000
5	Purchased furniture for cash	5,000
8	Bought goods on cash	15,000
10	Bought goods on credit from Brown	20,000
12	Sold goods for cash	25,000
15	Sold goods on credit to Madhavan	15,000
18	Bought goods on credit from Kannan	30,000
20	Sold goods on credit to Rahul	20,000
25	Paid cash to Brown	15,000
30	Salaries paid	4,000

Sol :

(Nov.-20)

Journal Entries in the Books of....

Date	Particulars	L.F	Debit (₹)	Credit (₹)
1-1-2000	Cash A/c Dr. To Capital A/c (Being amount invested for the commencement of business)		1,50,000	1,50,000
5-1-2000	Furniture A/c Dr. To Cash A/c (Being furniture purchased for cash)		5,000	5,000
8-1-2000	Purchases A/c Dr. To Cash A/c (Being goods purchased for cash)		15,000	15,000
10-1-2000	Purchases A/c Dr. To Brown A/c (Being goods purchased from Brown on credit)		20,000	20,000
12-1-2000	Cash A/c Dr. To Sales A/c (Being Goods sold for cash)		25,000	25,000
15-1-2000	Madhavan A/c Dr. To Sales A/c (Being goods sold on credit)		15,000	15,000

18-1-2000	Purchase A/c To Kannan A/c (Being goods Purchased on credit)	Dr.	30,000	30,000
20-1-2000	Rahul Alc To Sales Ale (Being goods sold on credit)	Dr.	20,000	20,000
25-1-2000	Brown Alc To Cash A/c (Being cash paid to Brown)	Dr.	15,000	15,000
30-1-2000	Salaries A/c To Cash A/c (Being Salaries paid by cash)	Dr.	4,000	4,000

Dr. Capital A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
31-1-200	To Balance c/d		1,500,000	1-1-2000	By Cash A/c		1,50,000
			1,50,000				1,50,000
				1-2-2000	By Balance b/d		1,50,000

Dr. Cash A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
1-1-2000	To Capital A/c		1,50,000	5-1-2000	By Furniture A/c		5,000
12-1-2000	To Sales A/c		25,000	8-1-2000	By Purchases A/c		15,000
				25-1-2000	By Brown A/c		15,000
				30-1-2000	By Salaries A/c		4,000
				31-1-2000	By Balance c/d (Balancing Figure)		1,36,000
			1,75,000				1,75,000
1-2-2000	By balance b/d		1,36,000				

Dr. Sales A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
31-1-2000	To Balance c/d (Balancing Figure)		60,000	12-1-2000	By Cash A/c		25,000
				15-1-2000	By Madhavan A/c		15,000
				20-1-2000	By Rahul A/c		20,000
			60,000				60,000
				1-2-2000	By Balance b/d		60,000

Dr. Purchases A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
8-1-2000	To Cash A/c		15,000	31-1-2000	By Balance c/d (Balancing Figure)		65,000
10-1-2000	To Brown A/c		20,000				
18-1-2000	To Kannan A/c		30,000				
			65,000				65,000
1-2-2000	To Balance b/d		65,000				

Dr. Furniture A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
5-01-2000	To Cash A/c		5,000	31-1-2000	By Balance c/d (Balancing Figure)		5,000
			5,000				5,000
1-2-2000	To Balance b/d		5,000				

Dr. Brown A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
25-1-2000	To Cash A/c		15,000	10-1-2000	By Purchases A/c		20,000
31-1-2000	To Balance c/d (Balancing Figure)		5,000				20,000
			20,000	1-2-2000	By Balance b/d		5,000

Dr. Madhavan A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
15-01-2000	To Sales A/c (Balancing Figure)		15,000	31-01-2000	By Balance c/d		15,000
			15,000				15,000
1-2-2000	To Balance b/d		15,000				

Dr. Kannan A/c Cr.

Date	Particulars	L.F.	Amount (₹)	Date	Particulars	L.F.	Amount (₹)
31-1-2000	To Balance c/d		30,000	18-1-2000	By Purchases A/c (Balancing Figure)		30,000
			30,000				30,000
				1-2-2000	By Balance b/d		30,000

Dr.**Rahul A/c****Cr.**

Date	Particulars	L.F	Amount (₹)	Date	Particulars	L.F	Amount (₹)
20-1-2000	To Sales A/c		20,000	31-1-2000	By Balance c/d		20,000
			20,000		(Balancing Figure)		20,000
1-2-2000	To Balance b/d		20,000				

Dr.**Salaries A/c****Cr.**

Date	Particulars	L.F	Amount (₹)	Date	Particulars	L.F	Amount (₹)
30-1-2000	To Cash A/c		4,000	31-01-2000	By Balance c/d		4,000
			4,000		(Balancing Figure)		4,000
1-2-2000	To Balance b/d		4,000				

1.8 PREPARATION OF TRIAL BALANCE

Q24. Define trial balance. What are the objectives of trial balance?

Ans :

Meaning

Trial balance is a worksheet in which the balances of all ledgers are compiled into debit and credit columns. Under the double entry system, the total of debits must be equal to total of credits. This worksheet helps in evaluating whether or not the total debits for the period are equal to total number of credits generated for the same period.

Every businessman prepares the trial balance after journal and ledger. It is a tradition to prepare the trial balance before the preparation of the final accounts. It serves as a tool to detect errors. If the trial balance is balanced, it means there are no mathematical errors in the ledgers. However this does not mean that there are no errors in a company's accounting system. By preparing a trial balance on a regular basis makes it possible to quickly identify a specific accounting period where the imbalance took place and correct it quickly. Therefore many businessman choose to prepare a trial balance on monthly basis.

Definitions

- (i) **According to Carter**, "Trial Balance is a statement of debit and credit balances derived from the ledger, including cash and bank balances."
- (ii) **According to William Pickles**, "The statement prepared with the help of ledger balances, at the end of financial year or at any other date, to find out whether debit total agrees with credit total, is called a Trial Balance."

- (iii) **According to J. R. Battiboi**, "Trial Balance is a statement prepared with the help of debit and credit balances derived from the ledger, the objective of which is to check the arithmetical accuracy of the ledger."
- (iv) **According to M.S. Gosar**, "Trial Balance is a statement containing the balances of all ledger accounts, as at any given date, arranged in the form of debit and credit columns placed side by side and prepared with the object of checking the arithmetical accuracy of ledger posting."

Objectives

The objectives of preparing trial balance are as follows:

1. Checking the Arithmetical Accuracy

One of the main objective or advantage of preparing the trial balance is to check the arithmetical accuracy of the ledger postings before the preparation of final accounts.

2. Knowledge of Balances

A main objective for preparing the trial balance is to know the balances of different accounts.

3. Full Proof of Recording

Another objective of preparing the trial balance is to know whether the double entry for all the transactions is complete or not. It is revealed by tallying of trial balance.

4. To Take Comparative Decisions

By comparing the balances of two or more years of different accounts, the comparative decisions can be taken.

5. Preparation of Final Accounts

Every businessman wants to check the arithmetical accuracy of the accounts before the preparation of final accounts. It is done with the help of trial balance. If the trial balance agrees, it means the accounts are arithmetically accurate.

6. Detection of Errors

Preparation of trial balance is also helpful in detecting the errors, e.g., error in totalling, error of omission and commission, etc.

Q25. Explain the advantages of trial balance.

Ans :

The trial balance has the following advantages:

1. It ensures that the transactions recorded in the books of accounts have identical debit and credit amount.
2. Balance of each ledger account has been computed correctly.
3. It helps in preparation of final accounts.
4. It makes the work of bookkeeping more active.
5. It summarizes the business information.

Q26. Explain the Proforma of Trial Balance.*Ans :***Trial Balance as on**

Date	Particulars	L.F.	Dr.	Cr.
	(Name of Account)		Amount	Amount

- Name of Account :** Names of all the accounts are given in this column.
- Ledger Folio :** It is the page number of the ledger on which a particular account is opened.
- Debit Amount :** In this column, the balance of that account will be shown that has debit balance or the total of the debit side of the account will be written.
- Credit Amount :** In this column, the balance of that account will be shown that has credit balance or the total of the credit side will be written.

Important Points to Remember While Preparing Trial Balance

- All assets have debit balance and all liabilities have credit balance.
- Capital Account has credit balance.
- Closing stock is not included in trial balance.
- All incomes and gains appear in the debit column of trial balance.
- Drawing account has debit balance.
- Purchases and Sales Return Account has debit balance and sales account and purchases return account has credit balance.
- If a difference in the debit and credit column appears, it is transferred to suspense account.

8. Prepare a trial balance as on 31st July 2009 from the following balances of Mr. Rajvansh.

Particulars	Amount	Particulars	Amount
Capital	10,000	Bank overdraft	8,700
Sales returns	1,000	Opening stock	15,000
Drawings	5,000	Cash	2,500
Bills payable	5,000	Purchases	9,000
Sales	15,000	Rent	1,000
Furniture	2,000	Bad debts	700
Creditors	12,000	Bills Receivable	3,500
Interest received	1,500	Debtors	14,500
Purchase returns	2,500		
Wages	500		

Sol :

Trial Balance of Mr. Rajvansh as on 31st July 2009

Particulars	Debit (`)	Credit (`)
Capital		10,000
Sales returns	1,000	-
Drawings	5,000	-
Bills payable	-	5,000
Sales	-	15,000
Furniture	2,000	-
Creditors	-	12,000
Interest received	-	1,500
Purchase returns	-	2,500
Wages	500	-
Bank overdraft	-	8,700
Opening stock	15,000	-
Cash	2,500	-
Purchases	9,000	-
Rent	1,000	-
Bad debts	700	-
Bills receivable	3,500	-
Debtors	14,500	-
Total	54,700	54,700

9. From the following balances, prepare a Trial Balance

Particulars	`	Particulars	`
Drawings	2,000	Sales	68,000
General Expenses	4,740	Purchases	40,000
Buildings	20,000		
Stock	16,540		
Wages	8,515		
Debtors	6,280		
Creditors	2,500		
Bad Debts	550		
Loan to Ravi	7,880		

Sol :

(Jan.-18)

Trial Balance

Particulars	Debit (₹)	Credit (₹)
Drawings	2,000	
General Expenses	4,740	
Buildings	20,000	
Stock	16,540	
Wages	8,515	
Debtors	6,280	
Creditors		2,500
Bad Debts	550	
Loan to Ravi	7,880	
Sales		68,000
Purchases	40,000	
Bank Overdraft		10,000
Suspense Account		26,005
Total	1,06,505	1,06,505

1.9 ACCOUNTING EQUATION - STATIC AND DYNAMIC VIEW

Q27. Explain about accounting equation.

Ans :

(Aug.-18)

Every business transaction has two aspects. One aspect is debited other aspect is credited. Both the aspects have to be recorded in accounts appropriately. American Accountants have derived the rules of debit and credit through a 'novel' medium, i.e., accounting equation. The equation is as follows:

$$\text{Assets} = \text{Equities}$$

The equation is based on the principle that accounting deals with property and rights to property and the sum of the properties owned is equal to the sum of the rights to the properties. The properties owned by a business are called assets and the rights to properties are known as liabilities or equities of the business. Equities can be subdivided into equity of the owners which is known as capital and equity of creditors who represent the debts of the business know as liabilities. These equities may also be called internal equity and external equity. Internal equity represents the owner's equity in the assets and external represents the outsider's interest in the asset. Based on the bifurcation of equity, the accounting equation can be restated as follows:

$$\text{Assets} = \text{Liabilities} + \text{Capital}$$

(Or)

$$\text{Capital} = \text{Assets} - \text{Liabilities}$$

(Or)

$$\text{Liabilities} = \text{Assets} - \text{Capital}.$$

The equation is fundamental in the sense that it gives a foundation to the double entry book-keeping system. This equation holds good for all transaction and events and at all periods of time since every transaction and events has two aspects.

10. What will be effect of the following on the Accounting Equation?**(i) Started business with cash ` 45,000****(ii) Opened a Bank Account with a deposit of ` 4,500****(iii) Bought goods from M/s. Sun & Co. for ` 11,200***Sol :*

S.No.	Transactions	Assets			=	Liabilities+	Capital
		Cash	Bank+	Stock	=	Creditors	Capital
		Rs.	+	Rs.	=	Rs.	Rs.
(i)	Started business with cash	45,000			=		45,000
		45,000			=		45,000
(ii)	Opened a Bank Account with a deposit	(4,500)		4,500	=		
		40,500		4,500	=		45,000
(iii)	Bought goods from M/s Sun and Co.			11,200	=		
					=	11,200	
	Total	40,500	+	4,500+	=	11,200 +	45,000

11. Show the Accounting Equation for the following transactions:**(i) Gopinath Started business with cash 25,000****(ii) Purchased goods from Shyam 10,000****(iii) Sold goods to Sohan costing ` 1,800 1,500****(iv) Gopinath withdrew from business 5,000***Sol :*

S.No.	Transactions	Assets					=	Liabilities+		Capital
		Cash	+	Stock	+	Debtor	=	Creditor	+	Capital
		Rs.	+	Rs.	+	Rs.	=	Rs.		Rs.
(i)	Gopinath started business with	25,000					=			25,000
(ii)	Purchased goods from Shyam	25,000								25,000
				10,000				10,000		
(iii)	Sold goods to Sohan	25,000		10,000			=	10,000		25,000
				(1,800)		1,500	=			(300)
(iv)	Gopinath withdraw from business	25,000		8,200		1,500	=	10,000		24,700
		(5000)					=			(5,000)
	Total	20,000	+	8,200	+	1,500	=	10,000	+	19,700

12. Show the effect of the following transactions on the Accounting Equation:**(i) Started business with cash ` 50,000.****(ii) Salaries paid ` 2,000.****(iii) Wages Outstanding ` 200.****(iv) Interest due but not paid ` 100.****(v) Rent paid in advance ` 150.***Sol :*

S.No.	Transactions	Assets		=	Liabilities+		+ Capital
		Cash	Advance	=	Outstanding		Capital
		Rs.	Rs.	=	Rs.		Rs.
(i)	Started business with cash	50,000		=			50,000
(ii)	Salaries paid	50,000		=			50,000
		(2,000)		=			(2,000) (Exp.)
(iii)	Wages Outstanding	48,000		=			48,000
				=	200		(200)
(iv)	Interest due but not paid	48,000		=	200		47,800
				=	100		(100) (Exp.)
(v)	Rent pain advance	48,000		=	300		47,700
		(150)	150	=			
	Total	47,850	150	=	300	+	47,700

13. Prepare Accounting Equation from the following:**(i) Started bus ness with cash ` 1,00,000 and Goods ` 20,000.****(ii) Sold goods worth ` 10,000 for cash ` 12,000.****(iii) Purchased furniture on credit for ` 30,000***Sol :*

S.No.	Transactions	Assets		=	Liabilities + Capital		
		Cash	Stock+	=	Creditor	+	Capital
		Rs.	Rs.	=	Rs.	Rs.	Rs.
(i)	Started business with cash Rs .100.000 and Goods Rs.20,000	1,00,000	20,000	=			1,20,000
(ii)	Sold goods worth Rs. 10,000 for cash Rs. 12,000	1,00,000	20,000	=			1,20,000
		12,000	(10,000)	=			2,000 (Profit)
(iii)	Purchased furniture on credit for Rs.30,000	1,12,000	10,000	=			1,22,000
				=	30,000		
	Total	1,12,000	10,000	=	30,000	+	1,22,000

14. Prepare an Accounting Equation on the basis of the following transactions:

- (i) Started business with Cash ` 70,000
- (ii) Credit purchase of goods ` 18,000
- (iii) Payment made to creditor ` 17,500 in full settlement
- (iv) Purchase of Machinery for Cash ` 20,000
- (v) Depreciation on Machinery ` 2,000

Sol :

S.No.	Transactions	Assets			=	Liabilities + Capital		
		Cash	+	Stock	+	Machinery	=	Creditor + Capital
		Rs.	+	Rs.		Rs.		Rs.
(i)	Started business with cash Rs. 70,000	70,000						70,000
(ii)	Credit purchase of goods Rs. 18,000	70,000		18,000		=	18,000	70,000
(iii)	Payment made to creditor Rs. 17,500 in full settlement	70,000		18,000		=	18,000	70,000
								500
								(Discount)
		(17,500)				=	(18,000)	(Received)
(iv)	Purchase of machinery for cash Rs.20,000	52,500		18,000		=	NIL	70,500
		(20,000)						20,000
(v)	Depreciation on machinery Rs.2,000	32,500		18,000		20,000	=	NIL
						(2,000)		(2,000)
								(Depreciation)
	Total	32,500	+	18,000	+	18,000	=	NIL + 68,500

1.10 ACCOUNTING STANDARDS THEIR RATIONALE AND GROWING IMPORTANCE IN GLOBAL ACCOUNTING ENVIRONMENT

Q28. Discuss the significance of Accounting Standards in Global Accounting Environment.

(OR)

Explain the rationale of Accounting Standards and their Growing Importance in Global Accounting Environment.

(OR)

Discuss the significance and rationality of Indian Accounting Standards.

(OR)

Discuss the need and importance of accounting standards in global accounting environment.

Ans :

(Jan.-19, Jan.-18)

The Accounting Standards will be issued under the authority of the council. ASB has been entrusted with the responsibility of propagating the Accounting Standards and persuading the concerned parties to adopt them in the preparation and presentation of financial statements. ASB will issue guidance notes on the Accounting Standards and give clarifications on issues arising therefrom. ASB will review the Accounting Standards from time to time.

For discharging the above functions, ASB will keep in view the purposes and limitations of financial statements. It will enumerate and describe the basic concepts to which accounting principles - should be oriented.

ASB will clarify the phrases commonly used in such financial statements and suggest improvements in the terminology wherever necessary. ASB will examine the various current alternative practices in vogue and identify such alternatives which should be preferred.

The Institute will issue the Accounting Standards for use in the presentation of the 'general purpose financial' statements issued to the public by such commercial, industrial or business enterprises as may be specified by the Institute from time to time. The term General Purpose Financial Statements includes balance sheet, statement of profit and loss and other statements and explanatory notes which form part thereof, issued for the use of shareholders, members, creditors, employees and public at large.

Importance

The following are the benefits of accounting standards,

1. Uniformity

Accounting standards maintain uniformity in the preparation and reporting of financial statements, so that the misleading deviations or changes in accounting treatment can be avoided while developing financial statements.

2. Comparability

As the accounting principles are uniform or consistent, the accounting standards can be used for comparing the financial statements of various organizations or various accounting periods of the same organization.

3. Reliability

The firmness or steadiness of economic system relies on the trust and confidence which the users have on the fairness of financial statements. Accounting standards helps in developing such type of confidence by producing a standard framework within which the financial statements can be prepared.

4. Useful to Investors

Accounting standards help the investors in analyzing the growth of different companies depending on the financial statements so that the best alternative is selected for taking investment decision.

5. Useful to Auditors

Accounting standards must be followed while preparing financial statements as it helps the auditors to manage their clients. If clients are not following the accounting standards, then the auditor must specify this point in the report for avoiding different penal provisions under the Companies Act, 1956.

6. Useful to Government

The financial statements which are prepared by following accounting standards can be easily combined and used by government officials and others.

Applicability

Great efforts have been made by two accounting bodies namely,

- (a) International Accounting Standards Board (IASB)
- (b) Institute of Chartered Accountants of India (ICAI).

(a) International Accounting Standards Board (IASB)

IASB was initially known as IASC (International Accounting Standards Committee) in the year 1973. In the year 2001, after its restructuring IASC was changed to IASB. This organization aimed at framing and spreading the standards among the general public which were used in preparing financial statements.

IASB also aims at promoting the accounting standards all over the world. Nearly 140 countries are its members. Till date, IASC has issued 41 standards, out of which 11 standards have been withdrawn and 30 standards have been in practise. IASB has also issued 7 standards to date.

The standards issued by IASB were initially called as International Accounting Standards (IASs) and now currently are known as International Financial Reporting Standards (IFRSs).

IASB does not hold any power to mandate the compliance of its standards by its member countries but simultaneously plays an important role in effecting the accounting standards formulation on par with its country's standards.

(b) Institute of Chartered Accountants of India (ICAI)

According to the revised preface of the para 2.3 with regards to the statements of accounting standards illustrates the role of ICAI in harmonizing the accounting standards. The para reads as under,

"The ICAI, being a member of International Federation of Accountants (IFAC), is supposed, inter alia to develop the International Accounting Standards Boards (IASB) pronouncements in the nation with an aim to facilitate global harmonization of the accounting standards. Thus, during the formulation of accounting standards, ASB would greatly take into consideration IAS's issued by the International Accounting Standards Committee or International Financial Reporting Standards (IFRs) which are issued by IASB, any one of these and would attempt to integrate them fully, in the light of the circumstances and practices existing in India".

ICAI till date has issued 31 accounting standards.

1.11 INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)**Q29. Explain about International Financial Reporting Standards (IFRS).**

Ans :

International Financial Reporting Standards (IFRS) are designed as a common global language for business affairs so that company accounts are understandable and comparable across international boundaries. ... IAS were issued between 1973 and 2001 by the Board of the International Accounting Standards Committee (IASC).

Definition

International financial reporting standards (IFRS) represent a set of generally accepted accounting principles (GAAP) used by companies to prepare financial statements, a critical source of information published annually, at a minimum, and useful to various stakeholders (shareholders, debtors, clients, employees and governments) in understanding a company's financial performance and management's stewardship of the company's resources.

Developed by the International Accounting Standards Board (IASB), these are a set of accounting rules followed by, or being adopted by, more than 100 countries. All member states of the EU are required to use IFRS as adopted by the EU for listed companies since 2005.

All other major economies have initiated a process to consider convergence or adoption of IFRS in the near future, even the United States (US GAAP as developed by the Financial Accounting Standards Board (FASB) - being the other most important set of financial reporting standards) where cross-listed firms on the US stock markets have been permitted to file statements prepared under IFRS since 2007.

With the increasing globalization of financial markets and of companies, the use of a single set of financial reporting standards across countries is viewed as having increased the comparability of financial statements across borders. It also reduces the cost of preparing the consolidated financial statements of groups made up of companies conducting business all around the world.

Financial reporting standards have been in the spotlight since the banking crisis, more specifically those requiring the measurement of financial assets and liabilities at fair value. In September 2009, G20 leaders in Pittsburgh asked the accounting standard setters IASB and, its US counterpart, the FASB to work towards a single set of high quality global accounting standards by June 2011. Convergence, however, is proving challenging and is likely to be pushed back.

Initially, IFRS began as an academic project aimed at creating a single set of global standards, their actual use was kick-started by the European Union.

International Financial Reporting Standards

S.No.	Name	Issued
IFRS 1	First-time Adoption of International Financial Reporting Standards	2008*
IFRS 2	Share-based Payment	2004
IFRS 3	Business Combinations	2008*
IFRS 4	Insurance Contracts	2004
IFRS 5	Non-current Assets Held for Sale and Discontinued Operations	2004
IFRS 6	Exploration for and Evaluation of Mineral Assets	2004
IFRS 7	Financial Instruments: Disclosures	2005
IFRS 8	Operating Segments	2006
IFRS 9	Financial Instruments	2014*
IFRS 10	Consolidated Financial Statements	2011
IFRS 11	Joint Arrangements	2011
IFRS 12	Disclosure of Interests in Other Entities	2011
IFRS 13	Fair Value Measurement	2011
IFRS 14	Regulatory Deferral Accounts	2014
IFRS 15	Revenue from Contracts with Customers	2014
IFRS 16	Leases.	

Exercise Problems

1. Prepare the Ledger account of Mr. Solkar from the following :

March 1 Debit balance ` to his account ` 2,000
 March 3 Sold goods on credit to him worth ` 10,800
 March 8 Received cash from him ` 12,600 and allowed discount of ` 200
 March 10 Solkar bought goods on credit ` 3,000
 March 15 Received cash from him ` 2,900 and allowed him discount ` 100
 March 20 Purchased goods on credit from Solkar worth ` 2,000
 March 25 Paid cash to Solkar ` 1,000
 March 28 Returned goods to him ` 200
 March 31 Paid cash to him in full settlement of his account ` 780

[Ans : Solkar's Account Total ` 17,800]

2. From the following transactions prepare only personal accounts in the ledger for April 2013.

April 1 Govind started business with cash ` 2,000 goods ` 3,000 and furniture ` 4,000
 April 5 Sold goods to Raghu ` 600 and for cash ` 400
 April 9 Received from Raghu on account ` 400
 April 12 Bought goods from Mohan ` 1,000
 April 15 Paid Mohan ` 500
 April 20 Paid Interest to Mohan ` 25
 April 21 Cash withdrawn by Govind for personal use ` 200

[Ans : [Govind's Capital A/c ` 8,800 (Cr.); Raghu ` 200 (Dr.), Mohan ` 500 (Cr.)]

3. Prepare the personal A/c of Mr. Balaji from the following transactions in the books of Ganesh.

2013
 March

" 1 Debit balance of Balaji's A/c ` 8,200
 " 4 Bought of Balaji ` 1,500
 " 7 Cheque of ` 2,000 issued to Balaji
 " 10 Goods sold to Balaji ` 1,200
 " 13 'Balaji sold goods to Ganesh ` 800
 " 16 Received an account payee cheque from Balaji ` 1,200
 " 20 Goods worth ` 230 returned to him
 " 24 Balaji bought goods from Ganesh ` 1,400
 " 26 Balaji claimed an allowance of ` 300 for damaged goods.
 " 28 A bearer cheque received from Balaji for ` 800
 " 29 Balaji received goods returned by Ganesh ` 270
 " 31 Received ` 8,500 in settlement of ` 8,700 from Balaji.

[Ans : Balaji's A/c Total ` 13,300]

4. State the accounts involved in the following transactions and which account is to be debited and which account is credited.

April 2016

1. Karthik commences business with Rs. 1,00,000.
2. Purchase furniture for Rs. 5,000.
3. Sold goods for cash Rs. 5,000.
4. Sold goods to Raj for Rs. 20,000.
5. Paid salaries Rs. 10,000.
6. Purchased goods from Ram for cash Rs. 9,000.
7. Commission received Rs. 800.
8. Paid outstanding expenses Rs. 900.

Rahul Publications

Short Question and Answers

1. What is double entry system?

Ans :

Double entry also allows for the accounting equation (assets = liabilities + owner's equity) to always be in balance. In our example involving Advertising Expense, the accounting equation remained in balance because expenses cause owner's equity to decrease. In that example, the asset Cash decreased and the owner's capital account within owner's equity also decreased.

A third aspect of double entry is that the amounts entered into the general ledger accounts as debits must be equal to the amounts entered as credits.

2. Advantages of double entry system.

Ans :

It has the following advantages :

1. Scientific System

Double entry is treated as a scientific system since there are certain principles and rules of recording the transaction according to which entries are made in the books of accounts.

2. Complete Record of Transactions

All types of transactions whether they are related with personal, real, nominal accounts are recorded in the books of accounts on the basis of specified rules. Thus, it is called a complete system and helps to narrate the transactions in future easily.

3. Knowledge about Different Accounts

This system gives the information and knowledge about the different types of accounts which are maintained in the ledger. Therefore, any information relating to any person, expense or income can easily be obtained.

4. Knowledge about Financial Position

This system also enables the businessman to know the financial position of his business. It also presents the assets and liabilities of the business on a certain date.

5. Elasticity

This system is flexible in nature and it can be expanded or contracted as per the changed requirements of the business. For example, if the number of transactions in the business increases, the subsidiary books can be used.

6. Less Possibility of Fraud and Mistakes

Since this system is scientific in nature, each transaction is recorded on two sides. Thus there is less possibility of fraud, mistakes and misappropriation. In case of any fraud and mistake it can be detected and rectified quickly.

3. Distinguish between Journal Vs Ledger.*Ans :*

S.No.	Basis	Journal	Ledger
1.	Meaning	Journal is a primary book wherein all the business transactions are recorded on a daily basis in a systematic manner.	Ledger is a book where the journalized transaction are being classified.
2.	Type of book	It is a book of primary record.	It is a book of final entry.
3.	Process	The process of recording transactions in a journal is called as 'Journalizing'.	The process of recording transactions in a ledger is called as posting.
4.	Organization of data	The organizing of each of the data within journal is known as the transaction.	The organizing of each of the data within ledger is known as the account.
5.	Nature	Journal is not balanced except for the cash book.	Every account in the ledger is balanced.
6.	Accuracy	It is very difficult to test the accuracy of the books.	The availability of lists of balances ensures easy accuracy testing.

4. Define Accounting.*Ans :*

Accounting, as an information system is the process of identifying, measuring and communicating the economic information of an organization to its users who need the information for decision making.

Financial accounting is a specialized branch of accounting that keeps track of a company's financial transactions. Using standardized guidelines, the transactions are recorded, summarized, and presented in a financial report or financial statement such as an income statement or a balance sheet.

Financial Accounting covers the preparation and interpretation of financial statements and communication to the users of accounts. It is historical in nature as it records transactions which had already been occurred. The final step of financial accounting is the preparation of Profit and Loss Account and the Balance Sheet. It primarily helps in determination of the net result for an accounting period and the financial position as on the given date.

Definitions

- (i) **Accounting to American Institute of Certified Public Accountants**, is "the art of recording, classifying and summarizing in a significant manner in terms of money, transactions and events which are, in part at least of a financial character, and interpreting the results thereof."
- (ii) **Accounting to American Accounting Association**, is "the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information".
- (iii) **Accounting to Accounting Principles Board (APB)**, is a service activity. Its function is to provide quantitative information, primarily financial nature, about economic entities that is needed to be useful in making economic decisions.
- (iv) **Accounting to H. Bierman and AR Drebin**, may be defined "as the identifying, measuring, recording and communicating of financial information."

5. Accounting equation.**Ans :**

Every business transaction has two aspects. One aspect is debited other aspect is credited. Both the aspects have to be recorded in accounts appropriately. American Accountants have derived the rules of debit and credit through a 'novel' medium, i.e., accounting equation. The equation is as follows:

$$\text{Assets} = \text{Equities}$$

The equation is based on the principle that accounting deals with property and rights to property and the sum of the properties owned is equal to the sum of the rights to the properties. The properties owned by a business are called assets and the rights to properties are known as liabilities or equities of the business. Equities can be subdivided into equity of the owners which is known as capital and equity of creditors who represent the debts of the business known as liabilities. These equities may also be called internal equity and external equity. Internal equity represents the owner's equity in the assets and external represents the outsider's interest in the asset. Based on the bifurcation of equity, the accounting equation can be restated as follows:

$$\text{Assets} = \text{Liabilities} + \text{Capital}$$

(Or)

$$\text{Capital} = \text{Assets} - \text{Liabilities}$$

(Or)

$$\text{Liabilities} = \text{Assets} - \text{Capital}.$$

6. What is journal.**Ans :**

A journal is known as a primary book of accounts or a book of original entry. With the increase in the size of business, the number of business transactions also increases. It is very difficult for a human-being to remember all those transactions. Therefore, to overcome this drawback, journal is prepared. Although, as stated above, the transactions can be recorded directly in the ledger. But such procedure will be cumbersome and confusing. Under this process, it will be very difficult to locate a transaction after several recordings. But

in journal, the transactions can easily be located as it provides chronological record of transactions.

Definitions

- (i) **According to Carter says**, "The journal or daily record as originally used, is a book of prime entry in which transactions are copied in order of date from a memorandum or a waste book. The entries as they are copied, classified into debit and credit, so as to facilitate their being correctly posted afterwards in the ledger."
- (ii) **According to L.C. Cropper**, "A journal is a book employed to classify or sort out transactions in a form convenient for their subsequent entry in the ledger."
- (iii) **According to Roland**, "Journal means a day book, diary or a log-book. It is called prime subsidiary book of double entry system."

7. Define ledger.**Ans :**

Ledger is a book where the journalized transactions are being classified. Ledger is a set of accounts and includes all the accounts of business i.e., personal, nominal or real.

A company can maintain ledger in two forms i.e., Bound Ledger and Loose-leaf Ledger. The process of transferring the debit and credit items from the journal to the ledger in their respective accounts is known as posting. Posting must be made/done before the preparation of final accounts. The accounts which are active in nature must be updated on the timely basis.

8. Functions of Accounting.**Ans :**

Accounting deals with recording, classifying, summarizing, analyzing and interpreting the financial transactions and communicating the end results to the interested parties.

The functions of accounting are as follows:

(i) Recording

Recording is a primary function of accounting. It mainly deals with recording all the financial transactions of business in a sequential order. All financial transactions are

recorded in a book called as 'Journal'. Journal is further divided into many subsidiary books and the number of subsidiary books to be maintained depends upon nature and size of the business.

(ii) **Classifying**

Classification deals with the organized analysis of recorded data, with an intention to group all the related entries at one place. Ledger account is the book where in all the similar entries are recorded. Ledger contains different accounts on different pages and accordingly related entries are recorded under one particular account. It helps in identifying the total expenditure incurred in one specific account.

(iii) **Summarizing**

Summarizing includes presenting the classified data in an acceptable and practical manner which is useful to both the internal and the external users of accounting statements. The process of summarizing involves preparing trial balance, income statement and the balance sheet.

9. **Accounting process**

Ans :

The process which starts with the transactions taking place and ends up with preparation of final accounts is known as accounting process. This process involves a sequence of activities which are repeated in every accounting period, so it is also known as accounting cycle.

10. **Define trial balance.**

Ans :

Meaning

Trial balance is a worksheet in which the balances of all ledgers are compiled into debit and credit columns. Under the double entry system, the total of debits must be equal to total of credits. This worksheet helps in evaluating whether or not the total debits for the period are equal to total number of credits generated for the same period.

Every businessman prepares the trial balance after journal and ledger. It is a tradition to prepare the trial balance before the preparation of the final

accounts. It serves as a tool to detect errors. If the trial balance is balanced, it means there are no mathematical errors in the ledgers. However this does not mean that there are no errors in a company's accounting system. By preparing a trial balance on a regular basis makes it possible to quickly identify a specific accounting period where the imbalance took place and correct it quickly. Therefore many businessmen choose to prepare a trial balance on monthly basis.

Definitions

(i) **According to Carter**, "Trial Balance is a statement of debit and credit balances derived from the ledger, including cash and bank balances."

(ii) **According to William Pickles**, "The statement prepared with the help of ledger balances, at the end of financial year or at any other date, to find out whether debit total agrees with credit total, is called a Trial Balance."

11. **International Accounting Standards Board.**

Ans :

IASB was initially known as IASC (International Accounting Standards Committee) in the year 1973. In the year 2001, after its restructuring IASC was changed to IASB. This organization aimed at framing and spreading the standards among the general public which were used in preparing financial statements.

IASB also aims at promoting the accounting standards all over the world. Nearly 140 countries are its members. Till date, IASC has issued 41 standards, out of which 11 standards have been withdrawn and 30 standards have been in practice. IASB has also issued 7 standards to date.

The standards issued by IASB were initially called as International Accounting Standards (IASs) and now currently are known as International Financial Reporting Standards (IFRSs).

IASB does not hold any power to mandate the compliance of its standards by its member countries but simultaneously plays an important role in effecting the accounting standards formulation on par with its country's standards.

Choose the Correct Answers

1. Accounting is an act of [d]
(a) Recording (b) Classifying
(c) Summarizing (d) All the above
2. The accounts which are related to the properties and assets of the business are, [a]
(a) Real accounts (b) Nominal accounts
(c) Both a and b (d) Personal accounts
3. The modified accounting equation implies assets = [d]
(a) Liabilities x Capital (b) Liabilities - Capital
(c) Capital - Liabilities (d) Liabilities + capital
4. _____ is a statement in which debit side and credit side balances are verified. [b]
(a) Income statement (b) Trial balance
(c) Balance sheet (d) Trading account
5. _____ helps in providing accounting information to the management for taking effective decisions. [a]
(a) Management accounting (b) Financial accounting
(c) Cost accounting (d) None
6. The system which generates the company's income statement and balance sheet and which is responsible for managing new and old accounts is, [c]
(a) Accounts receivable system (b) Investment managing system
(c) General Ledger system (d) None
7. The end users of accounting information are, [c]
(a) Creditors (b) Managers
(c) Both A and B (d) None
8. Which of the following is not included in a balance sheet ? [b]
(a) Accounts receivable (b) Sales
(c) Accounts payable (d) Cash
9. The process of transferring transaction effects into the appropriate accounts is referred to as, [d]
(a) Closing (b) Journalizing
(c) Recording (d) Posting
10. A listing of a business entity's assets, liabilities and owner's equity as of a specific date is, [a]
(a) Balance sheet (b) Income statement
(c) Statement of owner's equity (d) Statement of cash flow

Fill in the blanks

1. _____ is regarded as the language of business.
2. Accounting is done in business to maintain a _____ and _____ record of financial transaction.
3. All financial transaction of business are recorded in a book known as _____.
4. _____ is a book in which all the recorded entries are classified.
5. _____ explains the relationship of equities and assets.
6. In _____ system of accounting only cash related entries are recorded.
7. _____ is a practice where in business transactions are recorded in a significant and organized way.
8. The process which starts with transactions taking place and ends up with preparation of final accounts is known as _____ .
9. _____ system explains the two fold effect of every transaction.
10. All the transactions are firstly recorded in journal so it is called as _____ .

ANSWERS

1. Accounting
2. Systematic and accurate
3. Journal
4. Ledger
5. Accounting equation
6. Cash
7. Book-keeping
8. Accounting process
9. Double entry system
10. Books of prime entry

UNIT II

Distinction between capital and revenue expenditure; Depreciation concept and methods. Preparation and presentation of financial statements – Trading, Profit and loss account, Balance Sheet with adjustments for closing stock, outstanding expenses, accrued income, prepaid expenses, advance income, depreciation, loss/profit on sale, bad debts and provision for bad debts (Including Numerical Problems); provisions of the Indian Companies Act regarding preparation and presentation of financial statements; external auditor's report, the report of the Board of Directors, and voluntary disclosures

2.1 DISTINCTION BETWEEN CAPITAL AND REVENUE EXPENDITURE

Q1. Explain about Capital and Revenue Expenditure.

(OR)

What do you mean by Revenue Expenditure?

Ans : (Jan.-20, June-18, Feb.-17)

In the preparation of Final Accounts, it is important to make a clear distinction between capital revenue transactions. The allocation of expenditure and income between capital and revenue plays a vital role in the preparation of true and fair financial statements of business organization.

'Business expenditure' of an enterprise are of three kinds as,

1. Capital Expenditure
2. Revenue Expenditure
3. Deterred Revenue Expenditure.

A brief description of these types is presented here below.

1. Capital Expenditure

Capital expenditure is the expenditure which is normally incurred for acquiring fixed assets or assets which increase the earning capacity of the business. It is non recurring in nature. The benefits of capital expenditure are not fixed for single year, they can be extended for number of years ahead. Purchase of fixed assets like furniture, machinery and buildings etc., are a few examples of capital expenditure. Here it is to be underlined that

this expenditure is always shown at Assets side of the Balance Sheet.

2. Revenue Expenditure

Revenue expenditure is recurring in nature and incurred in the normal course of business activities. This expenditure is spent for smooth running of daily operational transactions. The impact or benefit of revenue expenditure is restricted to only one accounting year, e.g., Office expenses such as rent, salaries, selling expenses like carriage outwards, advertisements etc. Hence all revenue expenses are always debited to trading account or Profit & Loss A/c.

3. Deferred Revenue Expenditure

The Deferred expenditure consists of revenue and capital items. Benefits from these expenses are spread over several years. In other words, the expenses which are incurred in one accounting year but benefits of the same accrue in the future years are called are Deferred expenses, e.g. amount of expenditure on advertisement in the initial years, expenditure incurred on research and development, innovation etc.

Deferred Expenditure related to the current accounting period is to be debited to Profit & Loss A/c and the balance, assuming as capital in nature, will be shown as an asset in the balance sheet.

The 'business incomes' may be classified into a brief explanation of which is presented of below:

(i) Capital Income (Capital receipts)

Any amount received as an investment by the owners, raised by way of loans and Income

received on sale of fixed assets is called capital income, e.g., Capital, Sale of Machinery etc. All the capital incomes are to be recorded as liabilities in the balance sheet.

(ii) Revenue Income (Revenue receipts)

Revenue Receipts means an income which arises, during normal course of regular business transactions, e.g., Commission received, interest received sale of goods etc. Revenue incomes appear on the credit side of trading and profit and loss account.

(iii) Deferred Income

This consists of items of revenue and capital nature and spread over several years, e.g., Rent or interest received for more than a year. Apart of this income relating to the current accounting period (revenue in nature) is to be credited to profit and loss a/c and the balance (capital in nature) is to be shown as a Liability in the balance sheet.

Q2. Distinguish between Capital and Revenue Expenditure.

Ans :

(Jan.-18, Aug.-18)

S.No.	Nature	Capital Expenditure	Revenue Expenditure
1.	Source of expenditure	Capital expenditure is associated with the acquisition of fixed assets for business purpose.	Revenue expenditure is associated with the day to day business activities.
2.	Examples	Purchase of additional plant, building, purchase of patents, copy rights, goodwill etc.,	Administrative expenses, manufacturing and selling expenses, interest on loan etc.
3.	Purpose of expenditure	Capital expenditure enhances the earning capacity of the firm in long.	Revenue expenditure maintains the earning the earning capacity of the firm term.
4.	Nature of expenditure	Capital expenditure is a non recurring expense.	Revenue expense is a recurring expense.
5.	Accounting treatment	Capital expenditure is debited to the balance sheet of the firm.	Revenue expenditure is debited to the profit and loss account.
6.	Effect on income	Capital expenditure does not have any effect on business income of the present accounting period.	Revenue expenditure reduces the income of the current period,

Q3. Under what circumstances Revenue Expenditure becomes Capital Expenditure

Ans :

The circumstances which influence capital nature of a revenue expenditure are,

- (i) Repairs :** In general the expenses incurred for the repairs of fixed assets of first hand will be treated as revenue expenditure. If the assets are of second hand, the expenses incurred for their repairs can be treated as capital expenditure.
- (ii) Wages :** The expenses incurred for the payment of wages are revenue in nature. But the expenses incurred for the wages paid for the workers for construction of fixed assets or erection of fixed assets will be considered as capital expenditure.
- (iii) Legal Charges :** In general legal charges are revenue in nature. However, the legal charges associated with the purchase of fixed asset are treated as capital expenditure and are included under the cost of fixed asset.

- (iv) **Transportation Charges :** Transportation charges are generally taken as revenue expenditure but the charges associated with the transportation of new plant and machinery are treated as capital expenditure and are included under the cost of fixed asset.

(v) **Interest on Capital**

While constructing the building or plant the interest on capital is added to the cost of the asset and is treated as a capital expenditure.

2.2 DEPRECIATION CONCEPT

Q4. Define Depreciation.

(OR)

What do you understand by the concept of depreciation?

Ans : (Jan-18)

The term depreciation is derived from the Latin words 'do' meaning down and 'pretium' meaning price. In common use it means putting down the value of an asset due to wear and tear, passage of time, obsolescence, etc.

Business is established for indefinite period. Fixed assets are constantly used in the business. The assets lose their value gradually due to their constant use. Loss in the value and utility of assets due to their constant use and expiry of time is termed as 'depreciation'.

It is very difficult to give a single definition of the term depreciation because under different situation this is handled differently and whatever seems to be correct in one situation may be improper in another. But even then some definitions are worth mentioning.

Definitions

- (i) **According to B.G Wickery** "Depreciation may be defined as the permanent decrease in the value of an asset through wear and tear in use or the passage of time."
- (ii) **According to J.R. Batliboi** "The term depreciation represents loss or diminution in the value of an asset consequent upon wear and tear, obsolescence, effluxion of time or permanent fall in market value."

- (iii) **According to Spicer and Peglar** "Depreciation may be defined as the measure of the exhaustion of the effective life of an asset from any cause during a given period."

- (iv) **According to The Institute of Chartered Accountants of England and Wales** "Depreciation is that part of the cost of fixed assets to its owner which is not recoverable when the asset is finally put out of use by him. Provision against this loss of capital is an integral cost of conducting the business during the effective commercial life of the asset and is not dependent upon the amount of profit earned."

- (v) **According to Pickles** Depreciation is the permanent and continuing diminution or decrease in the quality, quantity or value of asset."

- (vi) **According to A.J. Sarvcross and P.M. Sharvcross** "Depreciation is an expense or loss involved in using machinery, motor vehicles, tools and other fixed assets in the process of production and has to be provided for; this is done by estimating the amount to be written off the value of a particular asset each year and setting up an amount against the profits for that year."

- (vii) **According to S.W. Rowland** "The primary meaning of the word depreciation is loss of value through wear and tear (or) some other form of material deterioration. The secondary sense of depreciation is the operation of adjusting the book values of assets. As the machines or other assets get old, it is the practice of the accountant to reduce their values in the books of accounts and it is usual to call this as depreciation."

Q5. What are the causes of depreciation?

Ans :

Causes of depreciation may be of two :

- (i) Internal causes and
- (ii) External causes.

(i) Internal Causes

Wear and tear, exhaustion, depletion, deterioration etc., causes depreciation of assets which are internal in nature.

1. Wear and tear

Assets diminish in their value as they are constantly used in the organization. The difference between the value of an asset when it was bought and its value being used for sometime represents wear and tear. Although assets are kept in working conditions, a time comes when only scrap value remains.

2. Exhaustion

Assets are bound to lose their value as time progress. Consequently, productivity declines. Assets exhaust their value and are found useless after the elapse of a certain fixed period. It is true that assets have their definite age.

3. Depletion

Natural resources such as mines, quarries and oil wells are of a wasting character. As a result of gradual exhaustion, the value of wasting assets declines. They are consumed gradually. The process of earning income through extraction causes depletion of wasting assets.

4. Deterioration

Deterioration means erosion in value of those assets which have a very short life. Proper repairs and maintenance of these assets cause an additional loss by way of deterioration.

(ii) External Causes

Factors external to causes of depreciation include passage of time, obsolescence, permanent fall in market value and weather and accidental elements. These factors are not connected to the asset. Even then they cause depreciation.

1. Passage of time

The utility of some fixed assets is confined to a time frame. Assets like leasehold property become useless after a period. Relevant statutes may limit the period for which an organization can use assets in the production process. Assets like trademark, patents lose their value with the passage of time.

2. Obsolescence

Obsolescence implies the chance of an asset becoming out of fashion. This is a loss arising on account of new invention, technological changes, improvement in production methods, legal restraints etc. These factors

make it economical to replace the assets though they are still usable. Market changes are also a disturbing factor. For example, the demand for a product or service falls to such a level that it is no longer viable to continue with that product or service.

3. Permanent fall in the market value

Assets like investments lose their value due to a downfall in their market value. It is only the permanent fall in the value of asset. Temporary shrinkage in the value of assets should be ignored for depreciation calculation.

4. Weather and accidental elements

Assets lose their value due to weather, rain, sunshine or any accident like fire, earthquake, flood, tidal forces or similar other disasters. The effect of these factors enters into calculating depreciation.

Q6. What are the objectives of providing depreciation?

Ans :

The objectives of providing depreciation are :

- Ascertainment of true profits by charging depreciation to profit and loss account.
- Presentation of true financial position by showing the assets at their book values.
- Replacement of assets by setting aside a part of the profits of the business in the form of depreciation.

Q7. What are the Factors affecting depreciation ?

Ans :

Certain factors enter into consideration for determining depreciation. They are Value of assets, Estimated working life, Repairs and renewal, Addition and extension, Scrap value, Loss of interest on capital invested and Legal provisions. They are briefly discussed as below.

1. Value of Assets

Value of depreciable asset is the cost of the same asset that represents its money outlay or its equivalent in connection with its acquisition, installation and commissioning as well as for additions to improvements thereof. An increase or decrease in long term liability

on account of exchange fluctuations, price adjustments, changes in duties or similar factors may cause changes in the historical cost a depreciable asset.

2. **Estimated working Life**

Working life is determined by

- Legal or contractual limits such as the expiry dates of related leases.
- Extraction or consumption.
- Extent of use and physical deterioration on account of wear and tear which again depends upon operational factors like number of shifts for which the asset is to be used, repair and maintenance policy of the enterprise.

3. **Repairs and Renewals**

Repairs and renewals keep the assets in good working condition. A well maintained asset yields good results over its stipulated life. If it is poorly maintained, it will become useless after a short period. So, repairs and renewals are an important consideration while determining the amount of depreciation.

4. **Additions and Extensions**

Additions and extensions are normally made to existing assets like plants and buildings. The purpose is to increase their capacity. Expenditures on additions and extensions are of capital nature. The dates of incurrence of such expenditures are considered to ascertain depreciation.

5. **Residual Value**

Scrap value of an asset represents the amount which the assets will fetch when discarded. Residual or scrap value of the assets should be deducted from their original cost.

6. **Obsolescence**

An asset is likely to become outdated due to change in technology. The possibility of an asset going out of fashion should be carefully weighed while calculating the amount of depreciation.

7. **Loss of Interests**

The purchase of an asset involves a heavy sum. It may be alternatively invested elsewhere. So, capital involved in the purchase of an asset implies a loss of interest on alternative investment.

8. **Legal Requirements**

Provision for depreciation on assets is subject to the Income Tax Act and Companies Act. Their legal provisions do enter into calculation of depreciation.

Q8. **Explain the importance of depreciation.**

Ans :

The importance or need for providing depreciation arises for the following reasons:

1. **For Determination of Net Profit or Net Loss**

Loss in the value of assets is undoubtedly a business expense. It must be recorded and shown in the debit side of P/L A/c for the correct calculation of net profit or net loss. The ultimate objective of accounting is to determine the correct net income. This objective will not be achieved unless depreciation is not recorded in the books of accounts.

2. **For Showing Assets at Fair and True Value in the Balance Sheet**

If depreciation is not charged, the asset will be shown at value more than its actual value. The purpose of recording assets is to show them at their true value. Provision for depreciation reduces the value of assets with the amount of depreciation and assets are shown at their true and fair value.

3. **Provision of Funds for Replacement of Assets**

The assets acquired and used in the business will become useless after expiry of their estimated life or even before that, one will have to replace the obsolete assets with another fresh asset. The replacement will require funds. Proper method of depreciation will make the funds available for the purchase of fresh assets.

4. **Ascertaining Accurate Cost of Production**

Depreciation on factory plant and machinery is factory overhead. It will increase the cost of production and the price of the commodity

will be fixed at higher rates. In the absence of provision for depreciation, the sales price of the commodity will be fixed at lower rates, because cost of production will also be lower due to ignorance of depreciation. Profit will thus, be reduced.

5. Distribution of Dividend Out of Profit Only

Depreciation is charged out of profit and loss account, so the profit after charging depreciation will be lesser. Shareholders will get dividend out of this profit. If depreciation is not charged, the profit will be more and the excess dividend will be paid out of capital, which should have been paid out of profit.

6. Avoiding Over Payment of Income Tax

If depreciation is not charged, P/L A/c will show more profit. One will have to pay income tax on this profit. In this way, the payment of tax will be definitely more than what it should have actually been. The profit will reduce the amount of depreciation, so lesser or the actual income tax due will be paid. Provision for depreciation in this way avoids over payment of income tax.

2.2.1 Methods

2.2.1.1 Straight Line Method

Q9. Define Fixed or Equal Installment or Straight Line Method? Explain the advantages and disadvantages of straight line method.

Ans :

It is the simplest method of charging depreciation. In this, the depreciation is charged evenly every year throughout the effective life of the asset. The amount of depreciation is calculated by using the following formula:

$$\text{Depreciation} = \frac{\text{Original Cost of Assets} - \text{Estimated Scrap Value}}{\text{Life of Assets (Number of Accounting Periods)}}$$

For example, if an asset has been purchased for ₹ 1,00,000 and it will have scrap value of ₹ 10,000 at the end of the life after 10 years, the amount of the depreciation shall be calculated as follows:

$$\text{Depreciation} = \frac{₹ 1,00,000 - ₹ 10,000}{10 \text{ years}} = ₹ 9,000 \text{ per year}$$

Advantages

Following are the advantages of straight line method:

- 1. Simplicity:** This is the simplest method of providing depreciation. This can be easily understood even by ordinary person. Calculation of depreciation according to this method is also very simple.
- 2. Assets can be completely Written-off:** According to this method, assets can be written-off to zero. The depreciation is calculated on the original cost of the machine at the specified rate, so the value of asset is fully split over the useful life of asset.
- 3. Knowledge of Total Depreciation Charged:** The amount of total depreciation charged can be easily known by multiplying the yearly amount of depreciation with number of years, machine has been used.
- 4. Suitable for Small Firms:** Straight line method is the most suitable method for small firms. These firms use this method, because it is easy, simple and suitable to the size of the firms.

5. **Suitable for Firms Having Large Number of Old and New Machines:** The weakness of this method is removed, if the firm has both old and new machines. More maintenance charges on old machines and lesser on the new machines balance each other.
6. **Useful for Assets Having Lesser Value:** This method is the most suitable for charging depreciation on assets of lesser value such as furniture, fixture and patents.

Disadvantages

Following are the disadvantages of straight line method:

1. **Undue Pressure on Final Years:** The final years of the life of the asset have to bear more repairs and maintenance charges and also the same amount of depreciation, whereas initial years have to suffer lesser repair charges.
2. **No Provision for Replacement:** The amount charged as depreciation is retained in the business and used in the routine affairs. The firm has to bother for making arrangement of funds for the replacement of asset although depreciation has been charged every year.
3. **Loss of Interest:** The amount of depreciation charged every year is not invested outside the firm, so no interest is received. In certain methods of depreciation, the amount of depreciation is invested outside the business in securities and interest is received.
4. **Illogical Method:** It seems illogical to charge depreciation on the original cost of the asset every year when the balance of the asset is declining year after year.
5. **Unsuitable for Assets having Long Life and More Value:** This method is not suitable for those assets, which are subject to additions and extension from time to time, such as land and building and plant and machinery. It is not suitable for assets having more value.

PROBLEMS

1. **A company purchased a Machine worth of ₹ 1,00,000 on 01.04.2004 and establishment expenses incurred was ₹ 10,000. The life of the Machine is 5 years. Show the Machinery Account for 4 years using Straight Line Method.**

Sol :

$$\text{Depreciation} = \frac{\text{Investment} + \text{Establishment Expenses} - \text{Scrap Value}}{\text{Life of the Asset}}$$

$$\text{Depreciation} = \frac{1,00,000 + 10,000}{5} = ₹ 22,000$$

Dr.			Machinery A/c			Cr.		
Date	Particulars	Amount (₹)	Date	Particulars	Amount (₹)			
2004	To Bank A/c (Purchase)	1,00,000	2005	By Depreciation A/c	22,000			
Apr 1	To Bank A/c	10,000	Mar 31	By Balance c/d	88,000			
		1,10,000			1,10,000			
2005	To Balance b/d	88,000	2006	By Depreciation A/c	22,000			
Apr 1			Mar 31	By Balance c/d	66,000			
		88,000			88,000			

2006 Apr 1	To Balance b/d	66,000	2007 Mar 1	By Depreciation A/c	22,000
				By Balance c/d	44,000
		66,000			66,000
2007 Apr 1	To Balance b/d	44,000	2008 Mar 1	By Depreciation A/c	22,000
				By Balance c/d	22,000
		44,000			44,000
2007 Apr 1	To Balance b/d	22,000			

2. A company purchased 10 identical machines on 1st January at a cost of ` 11,000 each, each has a value and an average life of 5 years. At the end of 2nd year the company sold one machine purchased another for ` 14,000 in the beginning of the 3rd year. Journalize the transactions in company for the first three years.

Sol :

(Jan.-20)

Journal entries in the books of Agarwal & Co.

Date	Particulars	LF	Debt	Credit
1 st Year	Machines A/c Dr. To Bank A/c (Being machines purchased)		1,10,000	1,10,000
	Depreciation A/c Dr. To Accumulated Depreciation A/c (Being machines depreciated @ 20% on ` 1,10,000)		22,000	22,000
2 nd Year	Depreciation A/c Dr. To Accumulated Depreciation A/c (Being machines depreciated @ 20% on ` 1,10,000)		22,000	22,000
	Bank A/c Dr. Accumulated Depreciation A/c Dr. To Machines A/c (Being machine sold)		6,000 5,000	11,000
3 rd Year	Machine A/c Dr. To Bank A/c (Being machine purchased)		14,000	14,000
	Depreciation A/c Dr. Accumulated Depreciation A/c (Being machine depreciated @ 20% on ` 1,13,000)		22,600	22,600

Working Notes - 1**Calculation of Depreciation Rate**

Particulars	Amount (₹)
Cost of (10 × 11,000)	1,10,000
Less : Scrap Value	Nil
Depreciation to be written off over 5 years	1,10,000

$$\text{Yearly Depreciation} = \frac{1,10,000}{5} = ₹ 22,000$$

$$\text{Rate of Depreciation} = \frac{22,000}{1,16,000} \times 100 = ₹ 20\%$$

Working Notes - 2 :

Calculation of depreciation after sale of old machine and purchase of new machine.

Cost of 9 Machines = 11,000 × 9 = 99,000

(+) Cost of New Machines = 14,000

1,13,000

$$\text{Depreciation} = 1,13,000 \times \frac{20}{100} = 22,600$$

3. A firm purchases a plant for ₹ 10,000 on 1st January 2013. Installation charges are ₹ 2000. Plant to have a scrap value of ₹ 1,000 at the end of its useful life of 5 years. You are required prepare account for five years charging depreciation according to straight line method.

Sol :

(Jan.-19)

Dr			Plant Account			Cr.	
Date	Particulars	Amount (₹)	Date	Particulars	Amount (₹)		
2013 Jan 1	To Bank (Cost + installation)	12,000	2013 Dec.31	By Depreciation A/c	2,200		
			Dec.31	By Balance c/d	9,800		
		12,000			12,000		
2014 Jan 2	To Balance b/d	9,800	2014 Dec.31	By Depreciation A/c	2,200		
			Dec.31	By Balance c/d	7,600		
		9,800			9,800		

2015			2015		
Jan 1	To Balance b/d	7,600	Dec.31	By Depreciation A/c	2,200
			Dec. 31	By Balance c/d	5,400
		7,600			7,600
2016			2016		
Jan 1	To Balance b/d	5,400	Dec.31	By Depreciation A/c	2,200
			Dec.31	By Balance c/d	3,200
		5,400			5,400
2017			2017		
Jan 1	To Balance b/d	3,200	Dec.31	By Depreciation A/c	2,200
			Dec.31	By Balance c/d	1,000
		3,200			3,200

4. A certain trading concern acquires an asset for ` 10,000 and decides to write off depreciation on it on fixed installment method each year. If the asset is to last for 5 years, show the asset account as well as depreciation account for 3 years. Also show how the asset will appear in the Balance Sheet of the firm at the end of the third year.

Sol :

(Jan.-18)

Dr.			Cr.		
Date	Particulars	Amount (`)	Date	Particulars	Amount (`)
I Year	To Bank A/c	10,000	I Year	By Depreciation A/c	1,000
				$\left(10,000 \times \frac{10}{100} \right)$	
				By Balance c/d	9,000
		10,000			10,000
II Year	To Balance b/d	9,000	II Year	By Depreciation A/c	1,000
				By Balance c/d	8,000
		9,000			9,000
III Year	To Balance b/d	8,000	III Year	By Depreciation	1,000
				By Balance c/d	7,000
		8,000			8,000
IV Year	To Balance b/d	7,000	IV Year	By Depreciation A/c	1,000
				By Balance c/d	6,000
		7,000			7,000

V Year	To Balance b/d	6,000	V Year	By Depreciation A/c	1,000
				By Balance c/d	5,000
		6,000			6,000
VI Year	To Balance b/d	5,000			

Dr. Depreciation Account Cr.

Date	Particulars	Amount (₹)	Date	Particulars	Amount (₹)
I Year	To Asset A/c	1,000	I Year	By P&LA/c	1,000
II Year	To Asset A/c	1,000	II Year	By P&LA/c	1,000
III Year	To Asset A/c	1,000	III Year	By P&LA/c	1,000
		3,000			3,000

- 5.. A company, whose accounting year is financial year, purchased on 1st July, 2002 Machinery costing ₹ 40,000. It purchased further Machinery on 1st January of 2003 costing ₹ 20,000 and on 1st October, 2003 costing ₹ 20,000.

On 1st April 2004, one fourth of Machinery installed on 1st July, 2002 became obsolete and was sold for ₹ 3,000. Show how Machinery Account would appear in the books; if Machinery was depreciated by Fixed Installment Method @ 10% per annum.

Sol :

Dr. Machinery A/c Cr.

Date	Particulars	Amount (₹)	Date	Particulars	Amount (₹)
2002 July 1	To Bank A/c (I)	40,000	2003 Mar 31	By Depreciation A/c @ 10% (on 40,000 for 9 months on 20,000 for 3 month)	3,500
2003 Jan 1	To Bank A/c (II)	20,000		By Balance c/d	5,600
		60,000			60,000
2003 Apr 1	To Balance b/d (37,000 + 19,500) (I + II)	56,500	2004 Mar 31	By Depreciation A/c @ 10% (on 60,000 for 1 year on 20,000 for 6 months)	7,000
Oct 1	To Bank (III)	20,000		By Balance c/d	69,500
		76,500			76,500
2004 Apr 1	To Balance b/d (33,000 + 17,500 + 19,000)	69,500	2004 Apr 1	By Bank A/c (Sale) By Profit & Loss A/c (loss on sale)	3,000 5,250

	(I + II + III)		2005 Mar 31	By Depreciation A/c (I on 30,000 for 1 year 3,000 II On 20,000 for 1 year 2,000 III On 20,000 for 1 year 2,000) By Balance c/d	7,000 54,250
		69,500			69,500
2005 Apr 1	To Balance b/d	54,250			

Profit / Loss on sale of Machine :

Particulars	
$\frac{1}{4}$ of machine installed on 1 st July, 2002	10,000
Less : Depreciation for 9 months (2002)	750
Book Value as on 31 March 2003	9,250
Less : Depreciation for 2003	1,000
Book Value on 1 April, 2004	8,250
Less : Amount realized	3,000
Loss on sale of machinery	5,250
(OR)	
$\frac{1}{4}$ th of the Book Value of machine – 1 ($33,000 \times \frac{1}{4}$)	8,250
Sale value	3,000
Loss on Sale of Machinery	5,250

2.2.1.2 Diminishing Balance Method**Q10. Define Diminishing or Reducing or Written down value method.****Ans :**

Under the written down value method, depreciation, according to a fixed percentage calculated upon the "original cost (in the first year) and written down value, (in subsequent years) of an asset, is written-off during each accounting period over the expected useful life of the asset. Under this method, the rate of depreciation remains constant year after year whereas the amount of depreciation goes on decreasing.

How to Calculate Depreciation under WDV Method: The rate of depreciation is calculated as follows:

$$R = \left[1 - \sqrt[n]{\frac{S}{C}} \right] \times 100$$

Where,

R = Rate of Depreciation (in %),

n = Useful life of the asset (in years)

S = Scrap value at the end of useful life of the asset

C = Cost of the asset

For example, if a machine has been acquired for ` 1,00,000 and depreciation is charged @ 10% according to written down value method the depreciation to be charged will be made as under:

$$\text{1st year on ` 1,00,000 @ 10\% } \frac{10}{100} = 1,00,000 \times \frac{10}{100} = 10,000$$

$$\text{2nd year on ` 90,000 i.e. ` 1,00,000 - 10,000 = 90,000} \times \frac{10}{100} = 9,000$$

$$\text{3rd year on ` 81,000 i.e. ` 90,000 - 9,000 = 81,000} \times \frac{10}{100} = 8,100$$

$$\text{4th year on ` 72,900 i.e. ` 81,000 - 8,100 = 72,900} \times \frac{10}{100} = 7,290 \text{ and so on.}$$

Q11. What are the advantages and disadvantages of Diminishing (or) Reducing (or) Written down value method.

Ans :

Advantages

Following are the advantages of written down value method:

1. Easy Calculation

Calculation of depreciation is easier as compared to other methods of calculating depreciation except straight line method. Depreciation is calculated every year on the opening balance of asset. Depreciation on additions is separately calculated.

2. Balanced Effect on the Profit and Loss Account of Different Years

In the initial years depreciation is more and the maintenance charges are lesser. In the final years, depreciation is lesser but repairs and maintenance charges are more. So every year bears the charges almost the same as regards depreciation and maintenance.

3. Approved Method by Income Tax Authorities

The method is approved by income tax authorities.

4. Logical Method

It seems logical even to layman that the value of asset goes on diminishing year after year, so the depreciation should also be charged on the reducing balances. .

5. Suitable for Assets having Long Life

This method is suitable for those assets, which have long life. It is also suitable for those assets where additions and extensions are common feature, such as land, building and plant and machinery.

Disadvantages

Following are the disadvantages of written down value method:

1. Value of Asset Cannot be Reduced to Zero

It is very difficult to determine a rate by which the value of asset could be written down to zero.

2. Loss of Interest

The amount charged as depreciation is not invested outside the business so no interest is received. In certain methods, the amount is invested outside the business in securities and interest is received.

3. No Fund for Replacement

Though depreciation is charged every year but the amount charged is retained in the business and used in routine business operations. At the time of replacing assets, firm has to bother for making arrangement of funds, although it has charged depreciation every year.

4. Higher Rate of Depreciation

The rate of depreciation in this method is higher, because it will require longer period to write off the asset, if the rate is lower and the assets may become useless earlier.

5. Unequal Burden on Profit and Loss Account

The amount of depreciation goes on declining year after year, whereas the asset is used equally by every year

6. M/s Ram Ltd. purchased a Plant costing ` 2,50,000 on 1<sup>st</sup> July, 2005 and labour charges were ` 20,000. Depreciation is charged at 10%. Using Written-down Value Method, prepare Plant Account for 4 Years.

Sol :

Dr.			Cr.		
Plant A/c					
Date	Particulars	Amount (`)	Date	Particulars	Amount (`)
2005 July 1	To Bank A/c (Purchase)	2,50,000	2006 Mar 31	By Depreciation A/c (2,70,000 × 10% × 9/12)	20,250
	To Bank A/c (Labour Cost)	20,000		By Balance c/d	2,49,750
		2,70,000			2,70,000
2006 Apr 1	To Balance b/d	2,49,750	2007 Mar 31	By Depreciation A/c	24,975
		2,49,750		By Balance c/d	2,24,775
2007 Apr 1	To Balance b/d	2,24,775	2008 Mar 31	By Depreciation A/c	22,478
		2,24,775		By Balance c/d	2,02,297
2008 Apr 1	To Balance b/d	2,02,297	2009 Mar 31	By Depreciation A/c	20,230
		2,02,297		By Balance c/d	1,82,067
2009 Apr 1	To Balance b/d	1,82,067			2,02,297

7. Calculate depreciation for four years on reducing installment method on Plant and Machinery costing ₹ 4,00,000 @ 10%.

Sol :

Written Down Value Method

Particulars	Amount
Cost of plant and Machinery	4,00,000
(-) I Year Depreciation $\left(4,00,000 \times \frac{10}{100}\right)$	40,000
	3,60,000
(-) II Year Depreciation $\left(3,60,000 \times \frac{10}{100}\right)$	3,600
	3,24,000
(-) III Year Depreciation $\left(3,24,000 \times \frac{10}{100}\right)$	32,400
	2,91,600
(-) IV Year Depreciation $\left(2,91,600 \times \frac{10}{100}\right)$	29,160
Net Book Value	2,62,440

8. Machinery was purchased on 1-1-2000 for ₹ 40,000. On 30th June, another second hand machine was purchased ₹ 15,000 and ₹ 5,000 spent for repairs. On 30th June 2001, the second hand machine was sold for ₹ 15,000, machinery account after allowing depreciation of 10% p.a. on the written down value.

Sol :

(Nov.-20)

Dr.

Machinery A/c

Cr.

Date	Particulars	L.F	Amount (₹)	Date	Particulars	L.F	Amount (₹)
1-1-2000	To Bank A/c (Machine-1)		40,000	31-12-2000	By Depreciation A/c (Machine - 1) $\left[40,000 \times \frac{10}{100}\right]$		4,000
30-6-2000	To Bank A/c (Machine-2)		20,000	31-12-2000	Dy Depreciation A/c (Machine - 2) $\left[20,000 \times \frac{10}{100} \times \frac{6}{12}\right]$		5000
				31-12-2000	By balance c/d		55000
			60,000				60,000

1-1-2001	To Balance b/d		30-6-2001	By Depreciation A/c	950
	Machine - 1	36,000		(Machine -2)	
	Machine - 2	19,000		$\left[19,000 \times \frac{10}{100} \times \frac{6}{12} \right]$	
			30-6-2001	By Bank (Sale of Machine - 2)	15,000
			30-6-2001	By Profit & Loss A/c	3,050
				(Loss on sale of Machine-2)	
			31-12-2001	By Depreciation A/c (Machine-1)	3,600
			31-12-2001	By Balance c/d (Balancing Figure)	32,400
		55,000			55,000
1-1-2002	To Balance b/d	32,400			

Calculation of Profit / Loss on Sale of Machine - 2

Particulars	Amount (₹)
Book value of machine as on 30-6-2000 [15,000 + 5,000]	20,000
Less : Depreciation as on 31-12-2000 (6 months) $\left[20,000 \times \frac{10}{100} \times \frac{6}{12} \right]$	1,000
Book value of machine as on 1-1-2001	19,000
Less : Depreciation as on 30-6-2001 (6 months) $\left[19,000 \times \frac{10}{100} \times \frac{6}{12} \right]$	950
Book value of machine as on 30-6-2001	18,050
Less : Sale value of machine	15,000
Loss on Sale of Machine	3,050

9. On July 1st, 2001 A Company Ltd. Purchased a second hand Machinery for ₹ 30,000 and spent ₹ 6,000 on reconditioning and installing it. On January 1st, 2002 the firm purchased another Machinery for ₹ 12,000. On June 30, 2003 the machinery purchased on January 1, 2002 was sold for ₹ 8,000 and on July 1, 2003 a fresh plant was installed at a cost of ₹ 20,000. The company writes off 10% depreciation under Written Down Value Method. The Accounts are closed every 31st December. Show the machinery Account for the year ending 31st December, 2004.

Sol :

Dr.		Machinery A/c		Cr.	
Date	Particulars	Amount (`)	Date	Particulars	Amount (`)
01-7-2001	To Bank A/c		31-12-01	By Depreciation A/c	1,800
	(Machinery-I)	36,000		$\left(36,000 \times \frac{10}{100} \times \frac{6}{12} \right)$	34,200
	(30,000 + 6,000)	36,000	31-12-01	By Balance c/d	36,000
01-01-02	To Balance b/d	34,200	31-12-02	By Depreciation A/c: (Machinery-I)	
				$\left(34,200 \times \frac{10}{100} \right)$ 3,420	
01-01-02	To Bank A/c (Machinery-II)	12,000		(Machinery-II)	
				$\left(12,000 \times \frac{10}{100} \right)$ <u>1,200</u>	4,620
			31-12-02	By Balance c/d	41,580
		46,200			46,200
01-01-03	To Balance b/d	41,580	30-6-03	By Bank A/c (Sale (Machinery-II)	8,000
01-07-03	To Bank A/c (Machinery-III)	20,000	30-6-03	By Profit & Loss A/c (Loss on Sale)	2,260
			31-12-03	By Depreciation A/c (Machinery-I)	
				$\left(30,780 \times \frac{10}{100} \right)$ 3078	
				Machinery-II	
				$\left(10,800 \times \frac{10}{100} \times \frac{6}{12} \right)$ 540	
				Machinery-III	
				$\left(20,000 \times \frac{10}{100} \times \frac{6}{12} \right)$ <u>1,000</u>	4,618
			31-12-03	By Balance c/d	46,702
		61,580			61,580

01-01-04	To Balance b/d	46,702	31-12-04	By Depreciation A/c (Machinery-I)	
				$\left(27,702 \times \frac{10}{100}\right)$ 2770	
				(Machinery-III)	
				$\left(19,000 \times \frac{10}{100}\right)$ 1,900	4,670
				By Balance c/d	42,032
		46,702			46,702
01-05-05	To Balance c/d	42,032			

Working Notes**Calculation of profit/Loss on Sale of machinery-2**

Particulars	Amount (₹)
Books value of machine as on 1/1/02	12,000
Less : Depreciation as on 31/01/03 $\left(12,000 \times \frac{10}{100}\right)$	1,200
Book value of machine as on 01/01/03	10,800
Less : Depreciation as on 30/06/03 $\left(10,800 \times \frac{10}{100} \times \frac{6}{12}\right)$	540
Book value of machine as on 30/06/03	10,260
Less : Sale value as on 31/06/03	8,000
Loss on Sale	2,260

10. A Transport company purchased 6 Trucks at ₹ 4,00,000 each on July 1, 2006. The company observes financial year as its accounting year. On January 1, 2009 one of the Trucks was involved in an accident and was completely destroyed. Insurance company pays ₹ 1,90,000 in full settlement of claim. On Nov. 1, 2008 Company purchased second hand Truck for ₹ 2,00,000 and spends ₹ 20,000 on its overhauling.

Prepare Truck A/c for three years ending on March 31, 2009 if company writes off depreciation @ 20% p.a. on 1) Original Cost Method and 2) Written-down Value Method.

Sol :

Dr.				Truck A/c				Cr.	
Date	Particulars	Amount (₹) (I)	Amount (₹) (II)	Date	Particulars	Amount (₹) (I)	Amount (₹) (II)		
2006 July 1	To Bank A/c	24,00,000	24,00,000	2007 Mar 31	By Depreciation	3,60,000	3,60,000		
					By Balance c/d	20,40,000	20,40,000		
		24,00,000	24,00,000			24,00,000	24,00,000		
2007 Apr 1	To balance b/d	20,40,000	20,40,000	2008 Mar 31	By Depreciation	4,80,000	4,08,000		
		20,40,000	20,40,000		By Balance c/d	15,60,000	16,32,000		
						20,40,000	20,40,000		
2008 Apr 1	To Balance b/d	15,60,000	16,32,000	2009 Jan 1	By Bank A/c	1,90,000	1,90,000		
					By Depreciation	60,000	40,800		
					By P & L A/c	10,000	41,200		
Nov 1	To Bank A/c	2,00,000	2,00,000						
	To Bank A/c	20,000	20,000	2009 Mar 31	By Depreciation	4,07,333	2,79,333		
					By Balance c/d	11,12,667	13,00,667		
		17,80,000	18,52,000			17,80,000	18,52,000		
2009 Apr 1	To Balance b/d	11,12,667	13,00,667						

Loss on Sale of Truck

SLM (I)

DBM (II)

Cost of truck on 1-7-2006

4,00,000

4,00,000

Less : Depreciation for 2006-07 (9 months)

60,000

60,000

WDV on 1-4-2007

3,40,000

3,40,000

Less: Depreciation for 2007

80,000

68,000

WDV as on 1-4-2008

2,60,000

2,72,000

Less : Depreciation for 9 months (upto 31.12.09)

60,000

40,800

Book Value on 1.1.2009

2,00,000

2,31,200

Less: Amount from Insurance

1,90,000

1,90,000

Loss on Accident

10,000

41,200

Depreciation on Second hand Truck

$$= (2,00,000 + 20,000) \times 20/100 \times 2/12 = ₹ 7,333$$

Depreciation on Balance 5 trucks

$$\text{SLM : } 20,00,000 \times 20\% = ₹ 4,00,000$$

$$\text{DBM : } 13,60,000 \times 20\% = ₹ 2,72,000$$

$$\text{Total Depreciation : SLM : } 4,00,000 + 7,333 = ₹ 4,07,333$$

$$\text{DBM : } 2,72,000 + 7,333 = ₹ 2,79,333$$

Q24. Distinguish between straight line method and written down value method.**Ans :**

S.No.	Nature	Straight Line Method	Written Down Value Method
1.	Basic of Calculation	Depreciation is calculated at a fixed percentage on the original cost.	Depreciation is calculated at a fixed percentage on original cost (in first year) and on written down value (in subsequent years).
2.	Amount of Depreciation	The amount of depreciation remains constant.	The amount of depreciation goes on decreasing.
3.	Total Charge (i.e., depreciation plus repairs and repairs and renewals)	Total charge in later years is more as compared to that in earlier years since the amount of repairs and renewals goes on increasing as the asset grows older, whereas the amount of depreciation remains constant year after year.	Total charge almost remains uniform year after year, since in earlier years the amount of depreciation is more and the amount of repairs and renewals is less whereas in latter years, the amount of depreciation is less and the amount of repairs & renewals is more.
4.	Book Value/Zero-Level	The book value of the asset becomes zero or equal to its scrap value.	The book value of the asset does not become zero.
5.	Suitability	This method is suitable for those assets in relation to which (a) repair charges are less (b) the possibility of obsolescence is less. older and (b) the possibilities of obsolescence are more.	This method is suitable for those assets in relation to which (a) the amount of repairs & renewals goes on increasing as the asset grows
6.	Calculation-Easy or difficult	It is easy to calculate the rate of depreciation.	It is difficult to calculate the rate of depreciation.
7.	Effect on profit and loss account	The initial years of the life of the asset bear lesser amount as depreciation and repairs but final years bear the same amount of depreciation but more repairs and maintenance charges.	Every year bears almost the same charges, Depreciation goes on declining, whereas repairs and maintenance charges go on increasing,

2.3 PREPARATION AND PRESENTATION OF FINANCIAL STATEMENTS**Q12. What are financial statements? Write about usefulness of financial statements to various users.****Ans :**

Basically, financial statements are organised summaries of detailed information about the financial position and performance of an enterprise. Traditionally, the term "Financial Statements" are used to denote only two basic statements which are as under :

- (a) Balance sheet or position statement which shows the financial position of an enterprise at a particular point of time.
- (b) Trading and Profit and Loss Account or Income Statement which shows the results of business operations during an accounting period.

Nowadays, in addition to the foresaid two basic financial statements, a Statement of Retained Earnings and a Statement of Changes in the Financial Position (SCFP) are also prepared in practice.

Usefulness

The information contained in these statements is used by management, present and potential investors, lenders, short-term creditors, employees, customers, governments and their agencies to satisfy some of their different needs for information. Users can get better insight about the financial strengths and weakness of the firm if they properly analyse the information from their own points of view. The usefulness of the financial statements for some of the users is explained below.

S.No.	Users	Usefulness
1.	Short-term creditors	Short-term creditors may determine whether the amounts owing to them will be paid when due and may choose to extend, maintain or restrict the flow of credit to a business.
2.	Long-term creditors	Long-term creditors may determine whether their principles and the interest thereof will be paid when due and may choose to extend, maintain or restrict the flow of credit to a business.
3.	Present investors	Present investors may judge prospects for their investment and may determine whether they should buy, hold or sell the shares.
4.	Potential investors	The potential investors may judge the prospects of an enterprise and may determine whether they should buy the shares.
5.	Employee groups	Employee-groups may form judgements as to the ability of the enterprise to pay higher wages and bonus.
6.	Management	Management may review the firm's (a) Short-term solvency (b) Long-term solvency, (c) Activity (viz., effective utilisation of its resources, (d) Profitability in relation to turnover, (e) Profitability in relation to investments and decide upon the course of action to be taken in future.
7.	General public	The general public may evaluate the effectiveness of the economic entity from which it buys goods and/or services.
8.	Owners	Owners evaluation operations results and their positions.

2.3.1 Trading, Profit and Loss Account, Balance Sheet

Q13. Define Trading account. What are the advantages of trading account?

Ans :

(Nov.-20, Imp.)

Preparation of trading account is the first stage in final accounts. It is prepared to ascertain the 'Gross Profit or Gross Loss'. In other words, it is prepared to find out the difference between the actual cost of goods sold and sale proceeds. Generally the business organization purchases goods from others and incur certain expenditure and sell the same to earn profit. This process is known as trading activity. Hence trading account is prepared to know the results of trading activities carried during any specified accounting period.

Trading Account is a 'nominal account' in nature. All the trading expenses should be debited and trading incomes should be credited to this trading account. The balance in the trading account is either gross profit or gross loss.

Cost of Goods Sold = Purchase price of the goods + Expenses incurred on purchases

If opening stock of goods and closing stock of goods are given,

Cost of Goods Sold = Opening Stock + Net Purchases (Cash + Credit – Returns) + Direct expenses – Closing stock of goods

Gross Profit / Loss = Net Sales – Cost of Goods Sold

If the selling price of goods is more than cost price, it is known as gross profit. If the selling price of goods is less than cost price, it is known as gross loss. The gross profit or gross loss of trading account will be transferred to profit & loss account.

Advantages

1. It reveals either Gross Profit or Gross Loss
2. It helps in computing the Gross Profit / Loss Ratio
3. Trading expenses and incomes of the current year can be compared with that of the previous year or with any other year. This helps the trader in estimating his trade revenue for future years.

Q14. Explain the proforma of trading account.

Ans :

Dr. Trading Account for the year ending			Cr.		
Particulars	Amount (`)	Amount (`)	Particulars	Amount (`)	Amount (`)
To Opening stock		xx	By Sales	xx	
To Purchases	xxx		Less: Sales Returns	xx	xx
Less: Purchase returns	xx	xx	By Closing stock		xx
Purchase expenses:		xx			
To Carriage		xx			
To Cartage		xx			
To Freight		xx			
To Customs duties		xx			
To Import duties		xx			
To Clearing charges		xx			
To Octroi		xx			
To Excise duties		xx			
Direct Expenses:		xx			
To Wages		xx			
To Factory Rent		xx			
To Factory Insurance		xx			
To Gas and Coal		xx			
To Water Charges		xx			
To Factory Manager's Salary		xx			
To Works Manager's Salary		xx			
To Oil & fuel		xx			
To Manufacturing Expenses		xx			
To Heating and lighting		xx			
To Gross Profit (Balancing figure)			By Gross loss (Balancing figure)		
(Transferred to Profit and Loss account)		xx	(Transferred to Profit & Loss a/c)		xx
		xxx			xxx

Items Appearing in Trading Account**1. Opening Stock**

The stock which remains unsold at the end of previous year becomes the opening stock of next year. There will be no opening stock in the first year. In a manufacturing concern, there may be opening stock of raw material, work-in-progress and finished goods. All are shown on the debit side of the trading account.

2. Purchases and Purchase Returns

Net purchases are shown on the debit side of the trading account. Net purchases mean the purchases less returns outward (if any). Purchases include both cash as well as credit purchases.

3. Sales less Returns Inward

Net sales of goods are shown on the credit side the trading account. Net sales are arrived by deducting sales return from the gross sales.

4. Closing Stock

The unsold stock at the end of the year is known as closing stock. It appears on the credit side of the trading account. Like opening stock, it may be of raw-material, work-in-progress and finished goods. It is calculated at the end of the year and therefore no account is maintained for it in the ledger. If it is valued before the preparation of trial balance, then it appears in trial balance. When it is given in trial balance, it is shown in the balance-sheet only.

If it is valued after the preparation of trial balance, then it appears in adjustments. When it appears in adjustments, then it appears on the credit side of trading account and asset side of balance sheet. Different methods are followed for the valuation of closing stock, like FIFO, LIFO, average price, etc. Whatever may be the method adopted, it must be followed consistently. A principle should be kept in mind while showing it in the books. That principle is cost price or market price whichever is less. This principle is based on the convention that prospective profits should not be shown in the books of accounts while prospective losses are to be provided for in the books.

5. Power, Coal, Gas, Water, Fuel, etc.

These expenses are incurred on the conversion of raw-material into finished goods. They are shown on the debit side of trading account.

6. Royalty

These expenses are paid for using the rights of a property. For example, royalty paid to the owner of mine for extracting minerals, coal, etc. It is also debited to trading account.

7. Custom Duty, Dock-Charges

These are paid for bringing the raw-material from another country to our country. These are also debited to trading account.

8. Other Expenses

Other expenses, which are paid for manufacturing or upgrading the raw-material into saleable condition, are also shown on the debit side of trading account. These may be wages, freight, carriage inward, factory rent and factory lighting, etc.

11. Ascertain gross profit from the following :

Particulars	Rs.
Opening Stock	5,570
Purchases	13,816
Sales	15,284
Purchases Returns	390
Returns Inwards	524
Warehouse Wages Paid	1,400
Import Charges	252
Closing Stock	8,880

Sol :

Dr

Trading Account

Cr

Particulars	Rs.	Particulars	Rs.
To Opening Stock	5,570	By Sales	15,284
To Purchases	13,816	Less : Returns	524
Less: Returns	390	By Closing Stock	8,880
To Warehouse Wages	1,400		
To Import Charges	252		
To Gross profit (transferred to profit and loss account)	2,992		
	23,640		23,640

12. Prepare Trading Account of Raji & Co. for the year ended 31 st March. 1989

Particulars	Rs.	Particulars	Rs.
Purchases	42,500	Wages	5,000
Manufacturing expenses	1,950	Opening stock	10,000
Carriage inwards	100	Sales returns	50
Sales	67,500	Purchase returns	200
Freight and duty	5,000	Stores consumed	200
Power	300	Closing stock	12,000

Sol :

Dr. Trading Account for the year ending 31 st March, 1989. Cr.

Particulars	Rs.	Particulars	Rs.
To Opening Stock	10,000	By Sales	67,500
To Purchases	42,500	Less : Returns	50
Less: Returns	200	By Closing Stock	12,000
To Wages	5,000		
To Stores consumed	200		
To Manufacturing expenses	1,950		
To Carriage inwards	100		
To Freight and duty	5,000		
To Power	300		
To Gross profit (transferred to P & L Account)	14,600		
	79,450		79,450

13. Prepare the Trading Account from the following balances.

	Rs.
Stock 1-1-1986	
Raw Materials	5,000
Partly finished goods	14,000
Finished goods	30,000
Purchases	50,000
Sales	1,55,000
Sales returns	2,500
Purchases Returns	2,000
Carriage & cartage	1,000
Productive wages	1,000
Coal & coke	1,000
Freight	1,000
Factory lighting & heating	2,000
Dock charges	1,000
Factory rent, rates and taxes	500
Marine Insurance	500
Stock 31-12-1986	
Raw materials	5,000
Partly finished goods	9,000
Finished goods	14,000

Sol :

Dr.		Trading Account for the year ending 31-12-1986		Cr.
Particulars	Rs.	Particulars	Rs.	Rs.
To Opening stock		By Sales	1,55,000	
Raw Materials	5,000	Less : Sales returns	2,500	1,52,500
Partly-finished goods	14,000	By Closing stock (31-12-'86)		
Finished goods	30,000	Raw Materials	5,000	
To Purchase returns	50,000	Partly finished'goods	9,000	
Less : Purchases		Finished goods	14,000	28,000
returns	2,000			
To Productive Wages	1,000			
To Freight	1,000			
To Carriage & cartage	1,000			
To Coal & Coke	1,000			
To Factory lighting and heating	2,000			
To Factory rent, rates and taxes	500			
To Marine Insurance	500			
To Dock charges	1,000			
To Gross profit	75,500			
(Transferred to profit and loss Account)				
	1,80,500			1,80,500

Q15. Define Profit & Loss Account. What are the advantages of Profit & Loss Account?

Ans :

(Nov.-20, Imp.)

After trading account, the second stage of the preparation of final account is the preparation of Profit & Loss account. It is prepared to find out the Net Profit or Net Loss of the business. This is also a nominal Account, so all the revenue expenses and losses should be debited and all the revenue incomes and gains are to be credited to this Profit & Loss a/c. The balance of Profit & Loss Account is either net profit or net loss, which will be transferred to balance sheet. The net profit will be added to the capital account in the balance sheet at liabilities side and the net loss will be deducted from Capital Account.

$$\text{Net Profit / Loss} = \text{Gross Profit} + \text{Incomes and Gains} - \text{Expenses and Losses}$$

Advantages

1. It Reveals net profit or net loss.
2. It helps to find out net profit ratio.
3. It assists in comparison of Current year's administrative, selling and other expenses with the previous year's amounts.
4. It facilitates for the preparation of balance sheet.

Q16. Explain the proforma of Profit & Loss Account.

Ans :

Dr. Profit & Loss A/c of xxx for the year ending xx, xx, xxxx			Cr.		
Particulars	Amount (₹)	Amount (₹)	Particulars	Amount (₹)	Amount (₹)
To Gross Loss b/d		xxx	By Gross Profit b/d		xxx
To Administrative Expenses			By Discount received	xxx	
To Salaries	xxx		By Interest received	xxx	
To Rent	xxx		By Commission received	xxx	
To Rates & Taxes	xxx		By Rent received	xxx	
To Insurance	xxx		By Interest on Drawings	xxx	
To Printing & Stationary	xxx		By Apprentice Premium	xxx	
To Audit Expenses	xxx		By Profit on sale of assets	xxx	
To Legal Expenses	xxx		By Bad Debt recovered	xxx	
					xxx
To General Expenses	xxx				
To Repairs	xxx	xxx			
To Selling & Distribution Expenses					
To Carriage Outwards	xxx				
To Advertisements	xxx				
To Bank Charges	xxx				
To Commission	xxx				
To Bad Debts	xxx				
To Travelling Expenses	xxx				
To Packing Expenses	xxx	xxx			
To Financial Expenses:					
To Discount Allowed	xxx				
To Interest on Capital	xxx				
To Interest on Loans	xxx	xxx			
To Losses:					
To Loss on sale of assets	xxx				
To Depreciation	xxx				
To Loss due to Fire Accident	xxx				
To Net Profit (transferred to Capital Account)	xxx	xxx	By Net Loss (Transferred to Capital Account)		xxx
(Balance figure)			(Balance figure)		
		xxxx			xxxx

PROBLEMS ON PROFIT & LOSS ACCOUNT

14. From the following balances prepare a profit and loss account for the year ending 31-12-1995.

Particulars	Rs.
Salaries	3,000
Carriage outwards	1,000
Discount allowed	500
Commission allowed	1,500
Bad debts	1,000
Repairs	1,000
Advertisements	1,000
Audit fee	500
General charges	1,000
Postage	1,000
Printing and stationery	1,500
Commission received	1,000
Rents received	1,000
Insurance premium paid	1,000
Office electricity charges	500
Gross profit	24,000

Sol :

Dr. Profit and Loss Account for the year ending 31-12-1995 Cr.			
Particulars	Rs.	Particulars	Rs.
To Salaries	3,000	By Gross profit b/d	24,000
To Carriage outwards	1,000	By Commission Received	1,000
To Discount allowed	500	By Rent Received	1,000
To Commission allowed	1,500		
To Bad debts	1,000		
To Repairs	1,000		
To Advertisements	1,000		
To Audit fee	500		
To General charges	1,000		
To Postage	1,000		
To Printing and Stationery	1,500		
To Insurance Premium Paid	1,000		
To Office Electricity Charges	500		
To Net profit	11,500		
(Transferred to capital account & of Balance Sheet)			
	26,000		26,000

15. From the following ledger balances prepare a profit and loss account of Genetic sports company for the year ending 31-12-1995

Particulars	Rs.
Rent paid	3,000
Salaries	4,000
Commission paid	1,000
Discount paid	1,000
Advertisements	1,000
Telephone charges	1,000
Interest paid on loans	2,000
Bad debts	1,000
Telephone charges paid	1,000
Printing and Stationery	1,000
Office Insurance	1,000
Postage	500
Repairs	500

The Gross profit was 40% of sales and sales amounted to Rs. 1,00,000

Sol :

Genetic Sports Company

Dr.

Profit and Loss Account for the year ending 31 -12-1995

Cr.

Particulars	Rs.	Particulars	Rs.
To Rent Paid	3,000	By Gross Profit b/d	40,000
To Salaries	4,000	$\left(1,00,000 \times \frac{40}{100}\right)$	
To Commission Paid	1,000		
To Discount Paid	1,000		
To Advertisements	1,000		
To Telephone charges	1,000		
To Interest Paid on Loans	2,000		
To Bad debts	1,000		
To Telephone charges paid	1,000		
To Printing and Stationery	1,000		
To Office Insurance	1,000		
To Postage	500		
To Repairs	500		
To Net Profit	22,000		
(transferred to capital account & of Balance Sheet)			
	40,000		40,000

Q17. What do you understand by balance sheet?

Ans :

A Balance Sheet is a statement prepared with a view to measure the financial position of a business on a certain fixed date. The financial position of a concern is indicated by its assets on a given date and its liabilities on that date. Excess of assets over liabilities represent the capital and is indicative of the financial soundness of a company. A Balance Sheet is also described as a 'statement showing the sources and applications of capital'. It is a statement and not an account and prepared from real and personal accounts. The left hand side of the balance sheet may be viewed as a description of the sources from which the business has obtained the capital with which it currently operates and the right hand side as a description of the form in which that capital is invested on a specified date.

On the left hand side of the Balance Sheet, the several liability items describe how much capital was obtained from trade creditors, from banks, from bill holders and other outside parties. The owner's equity section shows the capital supplied by the owner.

Capital obtained from various sources has been invested according to management's best judgement of the optimum mix or combination of assets for the business. A certain fraction is invested in buildings, another fraction in stock, another fraction is retained as cash for current needs of the business and so on. The assets side of the Balance Sheet, therefore, shows the result of these management judgements as on the date of the Balance Sheet.

A properly drawn up Balance Sheet gives information relating to (i) the nature and value of assets (ii) the nature and extent of liabilities, (iii) whether the firm is solvent, (iv) whether the firm is overtrading.

If assets exceed the liabilities, the firm is solvent i.e., able to pay its debts in full. A business is, therefore, solvent by the amount of ownership capital in it, as it is the excess of assets over liabilities. The last point i.e., (iv) concerns the stability of the business. If the total of the debts due to creditors (including bank overdraft) is greater than the liquid assets (i.e., cash, investments, bills etc.) The position of the firm may be financially unsound. Where the debts are being incurred without sufficient means of payment, the firm is said to be overtrading. For the position to be quite sound, there should be some working capital i.e., some spare liquid assets available for current expenditure. It is not a wise policy to lock up the entire capital in fixed assets. The concern may be solvent without being sound.

Q18. Explain the Characteristics of a Balance Sheet.

Ans :

Characteristics

Following are the main characteristics :

1. It is prepared on a particular date and not for a particular period.
2. It is prepared after the preparation of Trading and Profit & Loss Account.
3. As assets must be equal to total liabilities, the two sides of the Balance Sheet must have the same total.
4. It shows the financial position of a business as a going concern.
5. It is a statement of assets (debit balances) and liability (credit balances) and not an account. Information that Balance Sheet Convey to Outsiders

Following are the main items of information that the Balance Sheet convey to an outsider:

Balance Sheet

1. The nature and the value of assets.
2. It shows the nature and extent of liabilities.

3. It shows the owners' equity (i.e., assets - liabilities = capital)
4. It tells about creditworthiness and solvency of the firm.
5. It reflects the liquidity of a firm.
6. It reveals the financial position of a firm at a particular point of time.

Q19. Explain the Classification of various Assets and Liabilities.

Ans :

(A) Assets

Assets are property and possession of a business. Stock, land, buildings, books debts, cash, bills receivable are some examples of assets. The classification of assets depends on their nature. The various types of assets are:

- (i) **Fixed Assets** : Those assets which are acquired and held permanently in the business and are used for the purpose of earning profits are called fixed assets. Land and buildings, machinery, furniture and fixtures are some examples of these assets.
- (ii) **Current (or Floating) Assets** : Those assets such as cash, debtors and stock that can be realised and readily available to discharge liabilities within an operating cycle of one year or are meant to be converted into cash as soon as possible are called current assets.
- (iii) **Tangible Assets** : These are definite assets which can be seen, touched and have volume such as machinery, cash, stock, etc.
- (iv) **Fictitious Assets** : These assets are fictitious in nature i.e., they are virtually not assets are valueless but shown in financial statements. These are either the past accumulated losses or expenses which are incurred once in the life of a business and are capitalized for the time being. Profit and Loss Account (debit balance), organisation expenses, discount on the issue of shares and advertisement expenses capitalized for the time being are examples of such assets.
- (v) **Intangible Assets** : Those assets which cannot be seen, touched and have no volume but have value are called intangible assets. Goodwill, patents, licences and trade marks are examples of such assets but quite valuable to the undertaking. An intangible asset may not be fictitious. If on account of the past goodwill purchased along with an existing concern, sales are readily effected and profit is readily earned, the asset is certainly not fictitious though it is intangible. However, if the amount of goodwill was paid in respect of a losing concern, the asset would be fictitious.
- (vi) **Wasting Assets** : Those fixed assets which have a fixed contact like mines, quarries etc. That become exhausted or reduce in value by their working are called wasting assets.
- (vii) **Liquid Assets** : These current assets which are already in the form of cash or such items as marketable securities which can be converted into cash quickly.
- (viii) **Contingent Asset** : It is an asset the existence, value and ownership of which is dependent on the occurrence or non-occurrence of a specified act. Suppose a firm has filed a suit for some specified property now in possession of someone else. If the suit is decided in firm's favour, the firm will get the property. At the moment it is a contingent asset. Similar would be the position of a patent applied for arising of a firm's own research effort. Contingent liability in respect of a contract for capital expenditure already entered into will give rise to an asset on payment, at present it is only a contingent asset.
- (ix) Working Capital is the difference between current assets and current liabilities.
- (x) Accounts Receivable will include sundry debtors and bills receivable.

(B) Liabilities

A liability is an amount which a business is legally bound to pay. It is a claim by an outsider on the assets of a business. Liabilities may be classified into four categories :

- (i) Fixed Liabilities :** These are those liabilities which are payable only on the termination of the business such as capital which is a liability to the owner.
- (ii) Long term Liabilities :** Those liabilities which are not payable within the next accounting period but will be payable within next five to ten years are called long term liabilities such as debentures.
- (iii) Current Liabilities :** Those liabilities which are payable out of current assets within the next accounting period usually year or already due are called current liabilities. Sundry creditors, bills payable, short term bank overdraft are examples of such liabilities.
- (iv) Contingent Liabilities :** A contingent liability is one which is not an actual liability but which will become an actual one on the happening of some event which is uncertain. Thus such liabilities have two characteristics :

- (a) Uncertainty as to whether the amount will be payable at all, and
- (b) Uncertainty about the amount involved.

It is sufficient if the amount of such liability is stated on the face of the Balance Sheet by way of a note unless there is a probability that a loss will materialise. In that event it is no more a contingent liability and a specific provision should be made therefor. Examples of such liabilities are:

- (a) Claims against the firm not acknowledged as debts.
- (b) Uncalled liability on partly paid up shares.
- (c) Arrears of fixed cumulative dividend.
- (d) Estimated amount of contracts remaining to be executed on capital account and not provided for.
- (e) Liability of a case pending in the court.
- (f) Bills of exchange, guarantees given against a particular firm or person.

Owners' Equity (or net worth) is the difference between assets and outside liabilities. It includes both capital and retained earnings.

Q20. Explain the uses of the Balance Sheet.

Ans :

The Balance Sheet is regarded as a prominent accounting report. The different interested parties may derive different information for their own use. Generally the following information can be derived from the Balance Sheet:

1. It enables us to ascertain the proprietary interest of a person or business organization.
2. It enables us to calculate the actual capital employed in the business.
3. The lender can ascertain the financial position of the business.
4. It may serve as the basis for determining purchase consideration of the business.
5. The trends of working capital of the business can be determined by comparison of Balance Sheet of successive years and corrective measures can be taken, where necessary.
6. Different ratios can be calculated from the Balance Sheet and these ratios can be utilised for better management of the business.

Q21. Explain Limitations of the Balance Sheet.

Ans :

Though the Balance Sheet is prepared by every organisation for disclosing its financial position, yet it is suffering from the following limitations :

1. Fixed assets are shown in the Balance Sheet at historical cost less depreciation upto date. A conventional Balance Sheet cannot reflect the true value of these assets. Again intangible assets are shown in the Balance Sheet at book values which may bear no relationship to market values.
2. Sometimes, Balance Sheet contains some assets which command no market value such as preliminary expenses, debenture discount, etc. The inclusion of these fictitious assets unduly inflate the total value of assets.
3. The Balance Sheet cannot reflect the value of certain factors such as skill and loyalty of staff.
4. A conventional Balance Sheet may mislead untrained readers in inflationary situations.
5. The value of majority number of current assets depend upon some estimates, so it cannot reflect the true financial position of the business.

Q22. Distinction between Profit and Loss Account and Balance Sheet.

Ans :

The main points of differences between a Profit and Loss Account and a Balance Sheet are as follows:

1. Profit and Loss Account is an account prepared with balances of nominal accounts whereas a Balance Sheet is a statement of assets and liabilities.
2. Profit and Loss Account discloses the profits earned or losses incurred for the accounting period usually a year whereas a Balance Sheet shows the financial position of the business on the last day of the accounting period.
3. Balances of nominal accounts are transferred to the Profit and Loss Account. Personal accounts and real accounts are shown in the Balance Sheet. Balance of Profit and Loss Account (i.e., net profit) is also shown on the liabilities side of the Balance Sheet.
4. Nominal accounts are closed by transferring them to the Profit and Loss Account. But the accounts that are shown in the Balance Sheet do not close and become the opening balances for the next accounting period.

Q23. Explain the various forms of balance sheets.

Ans :

Form of Balance Sheet

Assets Accounts show debit balances, where as liabilities show credit balances. All Assets are shown on the Assets side and all liabilities are shown on the Liabilities side. It is customary to show the assets and liabilities in a specific order. Arrangement of Assets and Liabilities in the Balance Sheet is called *Marshalling*. There are two methods of arranging the assets and liabilities.

1. The order of liquidity or releasability
2. The order of performance.

1. Balance Sheet under order of Liquidity

Generally Sole Trading Concerns and partnership firms follow the order of liquidity or realisability. The principle followed in this case is that those assets which can be easily converted into cash come first and then the assets which are more difficult to realise. Liabilities will be shown in the order in which they are payable, the most pressing liabilities being placed first and follows the less pressing liabilities. Following is the specimen of Balance Sheet where assets are arranged in the order of liquidity. Specimen Balance Sheet is given below.

Balance Sheet Under Order of Liquidity

Balance Sheet as at

Capital and Liabilities	Rs.	Assets	Rs.
Current Liabilities		Current Assets	
Sundry Creditors	xxx	Cash in hand	xxx
Bills payable	xxx	Cash at bank	xxx
Bank overdraft	xxx	Bills receivable	xxx
Mortgage	xxx	Sundry debtors	xxx
Outstanding expenses	xxx	Investments	xxx
Income received in advance	xxx	Closing stock	xxx
Loans		Unexpired expenses	xxx
Short term loans	xxx	Accrued income	xxx
Long term loans	xxx	Fixed Assets	
Reserve Fund		Furniture and Fittings	xxx
Capital	xxx	Plant and Machinery	xxx
Opening Balance	xxx	Land and Buildings	xxx
Add : Additional		Leasehold property	xxx
Capital introduced	xxx	Freehold property	xxx
Interest on capital	xxx	Motor vehicles	xxx
Net Profit	xxx	Intangible or Invisible Assets	
	xxx	Patents	xxx
Less : Drawings	xxx	Trade Marks	xxx
Interest on Drawings	xxx	Copy rights	xxx
Income tax	xxx	Goodwill	xxx
Insurance premium of			
Proprietor	xxx		
	xxx		xxx

2. Balance Sheet under Order of Performance

Under the second method i.e., where the order of performance is followed, the Balance Sheet appears as given below.

Balance Sheet as at.....

Capital and Liabilities		Rs.	Assets		Rs.
Capital			Intangible or Invisible		
Opening Balance		xxx	Assets		
Add : Additional			Goodwill		xxx
Capital introduced		xxx	Copy rights		
Interest on capital		xxx	Trade marks		xxx
Net Profit		xxx	Patents		xxx
		xxx	Fixed Assets		
			Motor vehicles		xxx
Less : Drawings	xxx		Freehold property		xxx
Interest on			Leasehold property		xxx
Drawing	xxx		Land & Buildings		xxx
Income Tax	xxx		Plant and Machinery		xxx
Insurance	xxx		Furniture and Fittings		xxx
Premium of			Current Assets		
properties	xxx	xxx	Accrued Income		xxx
Reserve Fund		xxx	Unexpired expenses		xxx
Loans			Closing stock		xxx
Long term loans		xxx	Investments		xxx
Short term loans		xxx	Sundry debtors		xxx
Current Liabilities			Bills Receivable		xxx
Income received in advance		xxx	Cash at bank		xxx
Outstanding expenses		xxx	Cash in hand		xxx
Mortgage		xxx			
Bank overdraft		xxx			
Bills payable		xxx			
Sundry creditors		xxx			
		xxx			xxx

16. From the following particulars, prepare a Balance Sheet as on 31st March, 2013:

Particulars	₹	Particulars	₹
Capital	50,000	Loan to Smith	5,000
Business Premises	55,000	Investments	3,000
Furniture & Fixtures	2,500	Cash in Hand	200
Bills Receivable	3,500	Cash at Bank	3,500
Bills Payable	2,500	Proprietor's withdrawals	3,000
Sundry Debtors	20,000	Net Profit	38,900
Sundry Creditors	15,800	Closing Stock	7,000
Packing Machinery	4,500		

*Sol :***Balance Sheet as on 31st March, 2013**

Liabilities	₹	Assets	₹
Sundry Creditors	15,800	Cash in Hand	200
Bills Payable	2,500	Cash at Bank	3,500
Capital	50,000	Investments	3,000
Add: Net Profit	38,900	Sundry Debtors	20,000
	88,900	Bills Receivable	3,500
Less: Drawings	3,000	Closing Stock	7,000
	85,900	Loan to Smith	5,000
		Packing Machinery	4,500
		Furniture & Fixtures	2,500
		Business Premises	55,000
	1,04,200		1,04,200

17. Following balances are extracted from the books of Kautilya & Co. on 31st March, 2016. You are required to prepare the trading, profit and loss account and a balance sheet as on the date :

Particulars	(₹)	Particulars	(₹)
Opening stock	500	Commission (Cr)	200
Bills receivable	2,250	Returns outward	250
Purchases	19,500	Trade expenses	100
Wages	1,400	Office fixtures	500
Insurance	550	Cash in hand	250
Sundry debtors	15,000	Cash at bank	2,375
Carriage inward	400	Rent and taxes	550
Commission (Dr.)	400	Carriage outward	725
Interest on capital	350	Sales	25,000
Stationary	225	Bills payable	1,500
Returns inward	650	Creditors	9,825
		Capital	8,950

Closing stock in valued at ₹ 12,500.

Sol :

(July-18)

Trading and Profit and Loss A/c for the Year Ending 31-3-2016

Particulars	Amount (₹)	Particulars	Amount (₹)
To Opening Stock	500	By Sales	25,000
To Purchases	19,500	Less: Returns inward	650
Less: Returns outward	250	By Closing Stock	12,500
To Wages	1,400		
To Carriage inwards	400		
To Gross Profit c/d	15,300		
	36,850		36,850
To Insurance	550	By Gross Profit b/d	15,300
To Commission	400	By Commission	200
To Interest on capital	350		
To Stationary	225		
To Trade expenses	100		
To Rent and taxes	550		
To Carriage outwards	725		
To Net Profit c/d	12,600		
	15,500		15,500

Balance Sheet of Kautilya and Co. as on 31-3-2016

Particulars	Amount (₹)	Amount (₹)	Amount (₹)
I. Sources of Funds			
1. Share Holders Funds			
(a) Share Capital			
Capital	8,950		
(b) Reserves and Surplus			
Net Profit (Profit and Loss A/c)	12,600	21,550	
2. Loan Funds			
(a) Secured Loans		—	
(b) Unsecured loans		—	
3. Others		—	21,550
Total Sources of Funds	21,550		

II. Applications of Funds			
1. Fixed Assets			
Office Fixtures	500		
Less: Depreciations	–	500	
2. Investments			
		–	
3. Current Assets			
Bills receivables	2,250		
Sundry debtors	15,000		
Cash in hand	250		
Cash at bank	2,375	19,875	
Less: Current Liabilities and Provisions:			
Bills payable	1,500		
Creditors	9,825	(11,325)	
4. Others			
Closing Stock		12,500	21,550
Total Application of Funds			21,550

2.3.2 Adjustments for Closing Stock, Outstanding expenses, Accrued income, Prepaid expenses, Advance income, Depreciation, Loss/profit on sale, Bad debts and Provision for bad debts

Q24. What do you mean by Adjustments? Explain the objectives of Adjustments.

Ans :

Every adjustment has two fold effect according to the principle of double entry system. Hence, every item given as adjustment is to be shown two times i.e., one time either in Trading Account or in Profit and Loss Account and second time, it should be shown in the Balance Sheet. However, the items given in the Trial Balance should be shown only one time while preparing the final accounts.

Objectives

1. To rectify the errors done in the recording of transactions in the books of accounts.
2. To record those transactions which are omitted to be recorded.
3. To record such expenses and incomes which have accrued but have not been paid or received.
4. To find out the correct profit or loss and financial position of the business.

Q25. Explain the various adjustments in the treatment of final accounts.

Ans :

Some of the important adjustments are explained as follows :

These adjustments will be recorded at two places because these are not recorded or wrongly recorded in the books. These are :

These are the goods which remain unsold at the end of the year. It is valued at cost price or market price whichever is less. Since it is not valued at the time of preparing trial balance, therefore it appears outside the trial balance. The following entry is passed for it.

To Trading A/c

Treatment : (i) Once it will appear on the Credit side of Trading A/c and secondly on the Assets side of Balance Sheet, (ii) If the Closing Stock is given in Trial balance, then only in Assets side of Balance Sheet.

The expenses which have become due but have not been paid at the end of the accounting year are called as outstanding expenses.

Entry: Expenses A/c Dr.

To Outstanding Expenses

(being expenses due)

Treatment: (i) If they are appearing outside the trial balance, once they will be added to particular related expenses in trading or profit & loss account and secondly they will appear on the liability side of balance sheet, (ii) If they are appearing inside the trial balance, They will appear on the liability side of balance sheet.

Such expenses are the reverse of outstanding expenses. It means the expenses which have been paid but the benefit of which is not taken are called prepaid expenses.

Entry: Prepaid Expenses A/c Dr.

To Expenses A/c

(being expenses paid in advance)

Treatment: (i) If they are appearing as adjustments, once they will be deducted from the particular related expenses appearing on the debit side of trading or profit & loss account and will appear on the assets side of balance sheet, (ii) If they are given in Trial Balance, they will appear only on the asset side of balance sheet.

It is the decrease in the value of fixed assets due to use, accident or passage of time.

Entry: Depreciation A/c Dr.

To Asset A/c

(being depreciation charged on particular asset)

Treatment: (i) If it is given as adjustment, it will appear on the debit side of profit & loss account and will be subtracted from the particular asset in the balance sheet, (ii) If it is given in trial balance, then only on the debit side of profit and loss account.

The income which is earned but not received during the year is called accrued income.

Entry: Accrued Income A/c Dr.
 To Income A/c
 (being income receivable)

Treatment: (i) Outside the Trial Balance: It will be added to particular income on the credit side of profit and loss account and will be shown on the asset side of balance sheet, (ii) Given in the Trial Balance: In this case, it will appear on the asset side of balance sheet only.

6. Unearned Income or Income Received in Advance

It is the reverse of accrued income. It is the income which is received during the year but no services have been rendered for it in the year. This income is related for the next year.

Entry : Income A/c Dr.
 To Unearned Income A/c
 (being income received in advance)

Treatment : (i) Outside the Trial Balance: If these are given as adjustment, once these are to be deducted from particular income appearing on the credit side of profit & loss account and on the liability side of balance sheet, (ii) In the Trial Balance: If it is given in the trial balance, it will appear on the liability side of balance sheet.

7. Interest on Capital

The amount which is to be given to owner for interest on the amount invested by him in the business is called interest on capital.

Entry : Interest on Capital A/c Dr.
 To Capital A/c
 (being interest on capital allowed)

Treatment: It will be shown on the debit side of profit & loss account and will be added in capital on the liability side of balance sheet.

8. Interest on Drawings

The amount or the goods withdrawn by proprietor for personal use are called drawings. The business charges interest on these drawings from him. This is called as interest on drawings.

Entry: Drawings A/c Dr.
 To Interest on Drawings A/c
 (being interest charged on drawings)

Treatment: (i) It will appear on the credit side of profit & loss account and will be subtracted from the capital on the liability side of balance sheet.

9. Interest on Loan

If any amount is borrowed from the outside source, then the interest is to be paid on that amount. This is called as interest on loan. If this is not paid, then it will become outstanding interest.

Entry: Interest on Loan A/c Dr.
 To Loan A/c
 (Being interest due on loan)

Treatment: Since they are the expenses, they will be shown on the debit side of profit and loss account and will be added in the amount of loan on the liability side of the balance sheet.

10. Bad Debts

These are the amounts which are not received from the debtors or there is no possibility of realising them:

Entry: Bad Debts A/c Dr.
 To Debtors A/c
 (being bad-debts written off)

Treatment: (i) Outside the Trial Balance: If they are given outside the trial balance once they will be shown on the debit side of profit & loss account and secondly will be subtracted from the debtors on the assets side of balance sheet.

(ii) In the Trial Balance: If they are given in trial balance, then it will be shown on debit side of profit & loss account only.

11. Provision for Bad and Doubtful Debts

Doubtful debts are those debts about which there is an uncertainty and their recovery is doubtful. It is only anticipation of future loss. Therefore, it cannot be treated as bad debts. For such type of amounts, we create a reserve or provision which is called as provision for bad and doubtful debts.

Entry : Profit and Loss A/c Dr.
 To Provision for Bad and
 Doubtful Debts A/c

(Being provision for doubtful debts created)

Treatment: It will be debited to profit and loss account and will be subtracted from the amount of debtors on the asset side of the balance sheet.

Both Bad Debts and Provision for Doubtful Debts are given in Adjustments as well as in Trial Balance.

In this case, the following equation should be made

$$\begin{array}{ccccccc} \text{Bad Debts} & + & \text{Further Bad Debts} & + & \text{New Provision} & - & \text{Old Provision} \\ (\text{T.B.}) & & (\text{Adjustment}) & & (\text{Adjustment}) & & (\text{T.B.}) \end{array}$$

If this equation comes +ve, then it will appear on the debit side of profit and loss account.

If this equation comes -ve, then after taking -ve sign common and it will become as follows and will appear on the credit side of the profit and loss account.

Old Provision - Bad Debts - Further Bad Debts - New Provision (T.B.) (T.B.) (Adjustment)(Adjustment)

Note: Only the amount of Bad Debts and Provision for Doubtful Debts given in adjustment will be subtracted from Debtors in the balance sheet. Firstly, the amount of bad debts will be subtracted from debtors and on the balance amount, the provision will be created.

12. Provision for Discount on Debtors

It is the amount which is allowed to debtors for making a prompt payment. It is a probable loss for the business.

Entry: Profit and Loss A/c Dr.
 To Provision for Discount on Debtors A/c
 (Being provision for discount on debtors created)

Treatment: It will be shown on the debit side of profit and loss account and will be subtracted from the amount of debtors on the asset side of balance sheet.

The following sequence should be kept in mind.

	Rs.
Amount of Debtors as per T.B.	—
Less : Further Bad Debts (Adjustment)	—
Less : Provision for Doubtful Debts (Adjustment)	—
on the amount (a)	
Less : Provision for Discount on Debtors	
(Adjustment) on (b)	
Amount to be shown in Balance Sheet	

13. Provision for Discount on Creditors

Just like we allow discount to our debtors, similarly our creditors allow us the discount. It is the profit for the firm.

Entry: Provision for Discount on Creditors A/c Dr.

To Profit and Loss A/c

(Being provision for discount on creditors created)

Treatment: It is the income for the business, therefore it will appear on the credit side of profit and loss account and will be subtracted from the amount of creditors on the liability side of balance sheet.

14. Implied Interest

If the amount of loan is appearing in trial balance and the rate of interest is also mentioned there, then the interest on that amount is to be paid as per time period. Now it should be ascertained whether the full amount of interest is given in trial balance or not. If the full amount is not included in trial balance, then the left out amount should be treated as outstanding interest. Since nothing will be mentioned in adjustments in this regard, therefore it is called as implied interest.

15. Sales Tax

Sales tax is the amount which is to be paid by seller to the government. Seller collects this amount from the buyers.

Treatment :

- (i) If 'Sales Tax Collected' or 'Sales Tax' is mentioned and the amount is given on the credit side of trial balance, it will be shown on the liability side of the balance sheet.
- (ii) If 'Advance Sales Tax' is mentioned on the debit side of trial balance, it will be shown on the asset side of balance sheet.
- (iii) If 'Sales Tax Paid' is mentioned on the debit side of Trial Balance, it will be written on the debit side of Profit and Loss Account.
- (iv) If 'Sales Tax Paid' and 'Sales Tax Collected' both are given, and collected amount is more than paid, the balance amount after subtracting paid amount from collected amount will be shown on the liability side of balance sheet. But if the amount paid is more than the amount collected, the balance amount after their adjustment will be shown on the asset side of balance sheet.

16. Drawings in the Form of Goods

If the proprietor has withdrawn the goods for personal use, it is called as drawings :

Entry : Drawings A/c Dr.

 To Purchases A/c

(Being goods withdrawn for personal use)

Treatment: The amount of goods withdrawn will be deducted out of purchases in the trading account and will also be deducted from capital on the liabilities side of balance sheet.

17. Use of Goods in Business

If the proprietor has used a part of goods in business, it becomes asset of the business.

Entry: Assets A/c Dr.

 To Purchases A/c

(Being goods taken for business use)

Treatment: The goods withdrawn will be subtracted from purchases in the trading account and will be added or shown separately on the assets side of balance sheet.

18. Goods Distribution as Free Samples

Sometimes proprietor distributes the goods as free samples for the purpose of advertisement or for increasing the sales.

Entry: Free Samples A/c Dr.

 To Purchases A/c

(Being goods distributed as free samples)

Treatment: The goods distributed as free samples will be deducted from purchases in the trading account and will appear on debit side of profit and loss account.

19. Charity in the form of Goods

Sometimes proprietor uses the goods for charity purposes. For example, proprietor of electric goods shop gives the fans to dharamshala for the sale of charity.

Entry : Charity A/c Dr.

 To Purchases A/c

(Being goods given away as charity)

Treatment: Goods given as charity will be subtracted from the purchases in the trading account and will appear on the debit side of profit and loss account.

20. Commission on Net Profit Payable to Manager

Sometimes commission on net profit is paid to manager in addition to his salary for making extra efforts to increasing the profitability of the firm.

Entry: Manager Commission A/c Dr.

 To Outstanding Commission A/c

(Being commission to be paid to manager)

Formulas for Calculation

$$\text{Commission} = \text{Net Profit before Commission} \times$$
$$= \text{Net Profit after Commission} \times$$

- i) Make all other adjustments in P/L A/c.
- ii) Make total of credit side of P/L A/c and write it in working notes.
- iii) Make a rough total of debit side of P/L A/c and write it in working notes.
- iv) Deduct their total of debit from the total of credit. The difference is used for calculating commission.
- v) Apply formula as per condition given and write down the calculated commission on the debit side of profit and loss account.
- vi) Now calculate the net profit.

The liability which is not a liability yet, but can become a liability on the happening of a certain event, e.g.,

- i) Pending cases in the court;
- ii) Guarantee of a loan of friend;
- iii) B/R discounted but not matured;
- iv) Liability for contracts undertaken till they are completed.

Treatment: These are shown as footnotes below the balance sheet only.

Sometimes an expenditure is made, the benefit of which is likely to be derived over next few years also, this is called as deferred revenue expenditure. Therefore, the amount of expenditure is spread over the period for which benefit will accrue. Every year the amount written off is transferred to profit and loss account.

Entry: Profit and Loss A/c Dr.
 To Particular Expenditure A/c
(Being expenses written off)

Treatment: The amount calculated after dividing the total amount by number of years will be shown to debit of profit and loss account and the balance amount will be shown on the debit side of balance sheet.

23. Goods Sold and Despatched but Omitted to be Recorded

If the goods are sold to a customer but omitted to be recorded in the books, the following journal entry will be passed. This generally happens when the sales are made on credit basis.

Entry: Debtors A/c Dr.
 To Sales A/c
(Being goods sold on credit)

Treatment: Once the amount is added to sales on the credit side of trading account and secondly it is added to debtors on the assets side of balance sheet.

24. Goods Sold on 'Sales or Return Basis

When the goods are sold on sales or return basis and if this is treated as sales it is an error and has to be rectified.

Entry: Sales A/c Dr.
 To Debtors A/c
(Being error of goods sold on sales or return basis rectified)

Treatment: Once it will be deducted from sales in trading account and debtors in assets in balance sheet and secondly it will be added to closing stock in trading account and in balance sheet. The selling price is to be deducted from debtors and sales and cost price of goods is to be added in closing stock at both places.

25. Dishonour of Bills of Exchange

If the payment against the bills receivable is not received on maturity date, it is called as dishonour of bills of exchange.

Entry: Debtors A/c Dr.
 To Bills Receivable A/c
(Being B/R dishonoured)

Treatment: The amount will be subtracted from bills receivable on the asset side of balance sheet and will be added in the amount of debtors in balance sheet.

26. Capital Expenditure treated as Revenue Expenditure or vice-versa

Sometimes capital expenditure is treated as revenue expenditure or revenue expenditure is treated as capital expenditure, it is error of principal and hence has to be rectified.

Treatment:

- i) If the capital expenditure is treated as revenue expenditure, then the amount will be subtracted from the particular expenses appearing in the debit or trading or profit and loss account and will be added in particular asset in the balance sheet.
- ii) If the revenue expenditure is treated as capital expenditure, the amount will be deducted from the particular asset and will be added to the debit side of trading or profit and loss account.

PROBLEMS ON FINAL ACCOUNTS WITH ADJUSTMENTS

18. From the following trial balance of Mahindra Traders, prepare final accounts for the year ended 31.12.2018:

Trial Balance

Particulars	Debit Bal.	Credit Bal.
Capital		32,000
Salaries	1,000	
Purchases	20,000	
Purchase Returns		400
Sales		25,000
Cash	5,000	
Wages	1,200	
Factory Rent	200	
Insurance	750	
Carriage	400	
Office Expenses	800	
Carriage Outwards	200	
Machinery	10,000	
Furniture	7,000	
Discount allowed	450	
Discount received		1,600
Goodwill	5,000	
Opening stock	2,000	
Debtors	9,000	
Creditors		4,000
Total	63,000	63,000

Adjustments:

- (1) Value of Closing Stock 2,500
- (2) Prepaid Insurance 250
- (3) Outstanding Salaries 300

Sol :

Trading and Profit & Loss Account of Mahindra Trader's
For the year ended 31.12.2018

Dr.			Cr.		
Particulars	Amount	Amount	Particulars	Amount	Amount
To Opening Stock		2,000	By Sales		25,000
To Purchases	20,000		By Closing Stock		2,500
Less: Returns	400	19,600			
To Wages		1,200			
To Factory Rant		200			
To Carriage		400			
To Gross Profit c/d		4,100			
		27,500			27,500
To Salaries	1,000		By Gross Profit b/d		4,100
Add: Outstanding Salaries	300	1,300	By Discount Received		1,600
To Insurance	750				
Less: Prepaid Insurance	250	500			
To Office Expenses		800			
To Carriage outwards		200			
To Discount allowed		450			
To Net Profit					
(Transferred to Capital A/c)		2,450			
		5,700			5,700

Balance Sheet of Mahindra Trader's as on 31.12.2018

Liabilities	Amount	Amount	Assets	Amount	Amount
Capital	32,000		Cash		5,000
Add: Net Profit	2,450	34,450	Machinery		10,000
Creditors		4,000	Furniture		7,000
Outstanding Salaries		300	Goodwill		5,000
			Debtors		9,000
			Prepaid Insurance		250
			Closing Stock		2,500
		38,750			38,750

19. From the following trial balance of a trade on 31st March 2016, prepare trading and profit and loss account for the year ended 31-3-2016 and a balance sheet on that date.

Particulars	Debit (Rs.)	Particulars	Credit (Rs.)
Cash in hand	1200	Capital	60000
Purchase	100000	4% Bank loan	20000
Opening stock	35000	Bills payable	20000
Sundry debtors	50000	Sundry Creditors	24000
Plant and Machinery	60000	Sales	200000
Furniture	15000	Bad debts reserve	1200
Bills receivable	18000	Rent outstanding	1000
Rent and taxes	10000		
Wages	16000		
Wages prepaid	1000		
Salaries	20000		
	326200		326200

Additional Information

1. Create reserve for doubtful debts at 5% on sundry debtors
2. Write off Rs.550 as bad debts
3. Depreciate plant and machinery at 5% and on furniture at 10%.
4. Provide outstanding liabilities : taxes Rs. 2000 and salaries Rs.4000
5. Closing stock Rs.40000

Sol :

(June-18)

Dr. Trading and Profit and Loss A/c for the Year Ending 31-3-2016 Cr.

Particulars		Amount (₹)	Particulars	Amount (₹)
To Opening Stock		35,000	By Sales	2,00,000
To Purchases		1,00,000	By Closing Stock	40,000
To Wages	16,000			
Less: Prepaid wages	1,000	15,000		
To Gross Profit c/d		90,000		
		2,40,000		2,40,000
To Rent and taxes	10,000		By Gross Profit b/d	90,000
Add: Outstanding rent	1,000			
	11,000			
Add: Outstanding taxes	2,000	13,000		
To Salaries	20,000			
Add: Outstanding salaries	4,000	24,000		

To Bad debts written off	500	
To Reserve for bad debts: (2,500 – 1,200)	1,300	
To Depreciation on plant and machinery $\left(60,000 \times \frac{5}{100}\right)$	3,000	
To Depreciation on furniture $\left(15,000 \times \frac{10}{100}\right)$	1,500	
To Net Profit c/d	46,700	
	90,000	90,000

Balance Sheet as on 31-3-2016

Particulars	Amount (₹)	Amount (₹)	Amount (₹)
I. Sources of Funds			
1. Share Holders Funds			
(a) Share Capital: Capital	60,000		
(b) Reserves and Surplus: Net Profit (Profit and Loss a/c)	46,700	1,06,700	
2. Loan Funds			
(a) Secured Loans: 4% Bank loan		20,000	
(b) Unsecured loans			
3. Others			
Outstanding Taxes		2,000	
Outstanding Salaries		4,000	1,32,700
Total Sources of Funds			1,32,700
II. Applications of Funds			
1. Fixed Assets:			
Furniture	15,000		
Plant and Machinery	60,000	75,000	
Less: Depreciations:			
Depreciation on Plant and Machinery	3,000		
Depreciation on Furniture	1,500	4,500	
		70,500	

2. Investments			
3. Current Assets:			
Cash in hand	1,200		
Sundry debtors	50,000		
Bills receivables	18,000	69,200	
Less: Current Liabilities and Provisions:			
Sundry creditors	24,000		
Bills payable	20,000		
Bad debts written off	500		
Reserve for bad debts	2,500	(47,000)	
4. Others			
Closing Stock		40,000	1,32,700
Total Application of Funds			1,32,700

20 From the following balance's prepare Trading and Profit and Loss Account and Balance Sheet as on 31st December, 2014.

Particulars	Rs.	Rs.
Capital	--	10,000
Machinery	3,500	--
Debtors	2,700	--
Drawings	900	--
Creditors	--	1,400
Purchases	9,500	--
Wages	5,000	--
Bank	1,500	--
Opening Stock (1-1-2014)	2,000	--
Rent	450	--
Sales	--	14,500
Sundry expenses	200	--
Carriage	150	--
Total	25,900	25,900

Adjustments :**(i) Closing stock as on 31-12-2014 Rs. 3600****(ii) Wages outstanding Rs. 200, Sundry expenses outstanding Rs. 100****(iii) Rent prepaid Rs. 100****Sol :****(Feb.-17)****Trading and P & L A/c for the year ended 31-12-2014**

Particulars	Amount	Amount	Particulars	Amount	Amount
To Opening stock		2,000	By Sales		14,500
To Purchases		9,500	By Closing stock		3,600
To Carriage		150			
To Wages	5,000	5,200			
(+) O/S Wages	200				
To Gorss Profit c/d		1,250			
		18,100			18,100
To sundry expenses	200		By Gross profit b/d		1,250
(+) O/S Sundry expenses	100	300			
To Rent	450				
(-) Prepaid Rent	100	350			
To Net profit		600			
		1,250			1,250

Balance sheet as on

Particulars	Amount	Amount	Particulars	Amount	Amount
Capital	10,000		Machinery		3,500
(+) Net Profit	600		Debtors		2,700
	10,600		Bank		1,500
(-) Drawings	900	9,700	Closing stock		3,600
Creditors		1,400	Prepaid rent		100
O/S Wages		200			
O/S Sundry expenses		100			
		11,400			11,400

21. Prepare Final Accounts of Telangana Traders for the year ended 31.12.2018.**Trial Balance**

Debit Balances	Amount `	Credit Balances	Amount `
Opening Stock	7,000	Capital	1,00,000
Purchases	9,000	Interest	1,500
Rent	1,200	Return Outwards	500
Salaries	1,500	Sales	16,000
Wages	1,000	Commission	1,000
Carnage Inwards	1,050	Creditors	6,000
Carriage Outwards	450		
Land & Buildings	50,000		
Investments	20,000		
Loose Tools	12,000		
Discount	1,500		
Interest	500		
Telephone Charges	700		
Printing & Stationary	900		
Furniture	18,000		
Return Inwards	200		
	1,25,000		1,25,000

Adjustments

Closing Stock: 12000, Outstanding Wages: 500, Interest Received in Advance: 600, Commission Receivable: 400.

Sol :

**Trading and Profit & Loss Account of Telangana Trader's
for the year ended 31.12.2018**

Dr			Cr		
Particulars	Amount `	Amount `	Particulars	Amount `	Amount `
To Opening Stock		7,000	By Sales	16,000	
To Purchases	9,000		Less: Returns	200	15,800
Less: Returns	500	8,500	By Closing Stock		12,000
To Wages	1,000				

Add: Outstanding Wages	500	1,500			
To Carriage		1,050			
To Gross Profit c/d		9,750			
		27,800			27,800
To Salaries		1,500	By Gross Profit b/d		9,750
To Rent		1,200	By Interest Received	1,500	
			Less: Int. Recd in	600	
To Carriage outwards		450	advance		900
To Discount		1,500	By Commission	1,000	
To Interest		500	Add: Commission	400	1,400
			Receivable		
To Telephone charges		700			
To Printing & Stationary		900			
To Net Profit					
(Transferred to Capital A/c)		5,300			
		12,050			12,050

Balance Sheet of Telangana Trader's as on 31.12.2018

Liabilities	Amount	Amount	Assets	Amount	Amount
Capital	1,00,000		Land & Buildings		50,000
Add: Net Profit	5,300	1,05,300	Investments		20,000
Creditors		6,000	Loose tools		12,000
Interest Received in Advance		600	Furniture		18,000
Outstanding wages		500	Commission Receivable		400
			Closing stock		12,000
		1,12,400			1,12,400

22. Prepare Trading and P&L Account and Balance Sheet for the year ending 31-12-2020.

Capital	Rs. 10,000	Debtors	Rs. 7,500
Drawings	Rs. 2,000	Return inwards	Rs. 300
Purchases	Rs. 20,800	Return outwards	Rs. 580
Opening stock	Rs. 6,900	Carriage inwards	Rs. 400
Sales	Rs. 27,500	Wages	Rs. 325
Creditors	Rs. 8,100	Salaries	Rs. 900
Rent	Rs. 1,000	Interest	Rs. 480
Discount (cr)	Rs. 270	Carriage outwards	Rs. 700
Furniture	Rs. 900	Insurance	Rs. 900
Machinery	Rs. 5,000	Bank loan	Rs. 3,000
Travelling expenses	Rs. 650	Cash	Rs. 575
Bad debts	Rs. 120		

Adjustments:

- (i) Closing stock Rs. 8,900
- (ii) Prepaid insurance Rs.250
- (iii) Outstanding salaries Rs.100 and Rent Rs.200
- (iv) Depreciate Machinery and Furniture at 10%.

Ans :

(July-21)

Dr. Trading and Profit and Loss A/c for the year Ending 31st December - 2020 Cr.

Particulars	Amount (₹)	Amount (₹)	Particulars	Amount (₹)	Amount (₹)
To Opening Stock		6,900	By Sales	27,500	
To Purchases	20,800		Less: Return Inwards	300	27,200
Less: Return Outwards	580	20,220	By Closing Stock		8,900
To Carriage Outwards		400			
To Wages		375			
To Gross Profit c/d (Transferred to P & L A/c)		8,255			
		36,100			36,100
To Rent	1,000		By Gross Profit b/d		8,255
Add: Outstanding Rent	200	1,200	By Discount Received		270
To Salaries	900				
Add: Outstanding Salaries	100	1,000			
To Travelling Expenses		650			
To Interest		480			
To Carriage Outwards		700			
To Insurance	900				
Less: Prepaid Insurance	250	650			
To Bad Debts		120			
To Depreciation on Machinery $\left[5,000 \times \frac{10}{100} \right]$		500			
To Depreciation on Furniture $\left[900 \times \frac{10}{100} \right]$		90			
To Net Profit c/d (Transferred to Capital A/c)		3,135			
		8,525			8,525

Balance Sheet as on 31st December 2020

Liabilities	Amount (₹)	Amount (₹)	Assets	Amount (₹)	Amount (₹)
Capital	10,000		Furniture	900	
Add: Net Profit	3,135		Less: Depreciation	90	810
	13,135		Machinery	5,000	
Less: Drawings	2,000	11,135	Less: Depreciation	500	4,500
Bank Loan		3,000	Debtors		7,500
Creditors		8,100	Cash		575
Outstanding Salaries		100	Prepaid Insurance		250
Outstanding Rent		200	Closing Stock		8,900
		22,535			22,535

2.4 PROVISIONS OF THE INDIAN COMPANIES ACT REGARDING PREPARATION AND PRESENTATION OF FINANCIAL STATEMENTS

Q26. Explain the provisions of Indian companies act regarding preparation and personation of final accounts of companies.

OR

Explain the provisions of companies act relating to the preparation of company accounts.

OR

Discuss the provisions relating to maintenance of books of accounts as per Indian companies.

Ans :

(July-21, Jan.-20, June-18, Aug.-18, Feb.-17)

Preparation and Presentation of Final Accounts

The companies Act 1965 made it compulsory for every company to keep proper set of books for recording financial transactions and to prepare its annual statements in the prescribed form at the proper time. The Amendment Act, 1998 has made it obligatory on all companies to maintain accounts on accrual basis and according to the double entry system of accounting. The provisions governing the keeping of books and the publication of final accounts dealt under laid down under sections 209 to 223. The brief provisions are as follows :

1. Preparation of Final Statements

Under Sec. 210 it has been made compulsory to present the balance sheet and profit and loss account, at every annual general meeting. For every financial year one annual general meeting must be held.

Between two agm's it shall not exceed fifteen months, however that it may be to eighteen months with special permission with Registrar extended of companies.

The responsibility for the preparation of final accounts and placing them before the annual general meeting is placed on the directors.

In the case of companies not carrying on business for profit, an income and expenditure account will be prepared instead of profit and loss account.

If the directors fail to comply with the provision of this section, they are punishable under the provision of company Act 1956.

2. Form and Contents of Profit and Loss Account and Balance Sheet

According to Sec. 211 every balance sheet and profit and loss account of a company shall give a true and fair view of the state of affairs of the company and further, the balance sheet shall be in the form set out in the Schedule VI or as near there to as circumstances admit or in such other form as may be approved by the Central Government either generally or in any particular case. The set form for the preparation of balance sheet has been given in part I of the Schedule and the requirements for the preparation of the profit and loss account are given in part II of that Schedule.

3. Disclosure of Interest in the Subsidiary Company

As per Sec. 212 if a company happens to be a holding company, the following documents relating to subsidiary company shall be attached to its balance sheet (a) A copy of the balance sheet (b) A copy of its profit and loss account (c) A copy of directors report (d) A copy of the reports of its auditors and (e) A statement of holding company's interest in the subsidiary.

4. Report

The auditor's report (including separate, special or supplementary report, if any) and directors report shall be attached to the balance sheet of the company.

5. Authentication of Balance Sheet and Profit and Loss Account

As per Sec. 215, every balance sheet and every profit and loss account of a company shall be signed on behalf of the board of directors by its manager or secretary, if any, and by not less than two directors of the company one of whom shall be a managing director where there is one.

6. Filling of Accounts

Under Sec. 220 within thirty days of the annual general meeting, every company has to file with the Registrar three copies of balance sheet and profit and loss account and three copies of all documents which are required to be attached with the balance sheet.

2.5 EXTERNAL AUDITOR'S REPORT, THE REPORT OF THE BOARD OF DIRECTORS, AND VOLUNTARY DISCLOSURES

Q27. Discuss about :

(i) External Auditor Report.

(ii) Report of the Board of Directors

Ans :

(i) External Auditor Report

External audit report is an important source of information. External auditors evaluate the truth and fairness of financial statements and about the quality of financial statements. Comments and qualifications in audit report provide important information and independent opinion on financial statements. Usually, board of directors, in its report, comment on audit qualifications. Analysts often adjust numbers in financial adjustments before financial analysis to give effect to audit qualifications.

(ii) Report of the Board of Directors

Board of directors in its report provides information that is important to understand past performance and future business prospect. For

example, Section 217 of the Indian Companies Act, 1956, which stipulates that a report by the board of directors be attached to every balance sheet laid before a company in a general meeting require that the report, at the minimum, should provide the following information:

- (a) The state of the company's affairs
- (b) The amounts, if any, which it proposes to carry to any reserves in such balance sheet
- (c) The amount, if any, which it recommends should be paid by way of dividend
- (d) Material changes and commitments, if any, affecting the financial position of the company which have occurred between the end of the financial year of the company which the balance sheet relates and the date of the report
- (e) The conservation of energy, technology absorption, foreign exchange earnings in such manner as may be prescribed.

The Indian Companies Act further requires that the board's report should, so far as is material for the appreciation of the state of the company's affairs by its members, and will not, in the board's opinion, be harmful to the business of the company or of any of its subsidiaries, deal with any changes which have occurred during the year:

- (a) In the nature of the company's business
- (b) In the company's subsidiaries or in the nature of the business carried on by them
- (c) Generally in the classes of business in which the company has an interest.

The board's report should also include a statement showing the names and details of every employee who was in receipt of remuneration not less than the prescribed amount.

The board's report should also include a 'directors' responsibility statement'.

Q28. Discuss about Voluntary Disclosures.

Ans :

Voluntary disclosure describes financial and non-financial disclosure primarily outside the financial statements, which are not explicitly required

by governing statutes. Managers improve the credibility of their financial reporting through voluntary disclosure. Voluntary disclosure articulates firm's long-term strategy and specification of non-financial leading indicators which are useful in evaluating the effectiveness of strategy implementation. Voluntary disclosure is also used for managing capital market expectations. Managers have the incentive to disclose information when they believe the market's expectations are sufficiently different from their own. It is said that the voluntary disclosure reduces the probability of being sued by investors.

One of the important constraints for voluntary disclosure is the product market dynamics. Disclosure of propriety information on strategies and their expected economic consequences might adversely affect the competitive advantage of the firm in the product market. Therefore, managers face a trade-off between the advantages of additional disclosures in the capital market and disadvantages of the same in the product market. Another important constraint is the credibility of the management. A voluntary disclosure by a management that is facing credibility problem is viewed skeptically by the capital market. Credibility of the management determines the credibility of voluntary disclosures, because they are not subject to external audit.

'Improving Business Reporting Insights into Enhancing Voluntary Disclosures', a document issued by the Financial Accounting Standards Board (FASB) of USA, listed the following findings and recommendations of the working group that worked on the research project on voluntary disclosure:

- Many leading companies are voluntarily disclosing an extensive amount of business information that appears to be useful in communicating information to investors.
- The importance of voluntary disclosures is expected to increase in the future because of the fast pace of change in the business environment.
- Voluntary disclosures related to matters that are important to the success of individual companies are very useful, particularly disclosures of management's view of the company's 'critical success factors' and trends surrounding those factors.

- Although some disclosures were found about unrecognised intangible assets, additional data about those assets would be beneficial, because of the importance of intangibles to a company's value. Intangibles include not only those resulting from research and development, but also human resources, customer relationships, innovations and others.
- Although many examples were found of helpful disclosures of forward-looking information, there is room for significant broadening of this material.
- Voluntary disclosure should cover not only good news but also disappointments. Disclosures are most useful if they report on previously disclosed plans and goals and the results achieved in meeting those plans and goals.
- The metrics used by companies to manage their operations and drive their business strategies often are very useful voluntary disclosures. Those metrics should be explained, and consistently disclosed from period to period to the extent they continue to be relevant to a company's success. However, a decision to make a voluntary disclosure in one period does not obligate a continuation of that disclosure if it is no longer relevant, or if a better metric becomes available.
- Companies are encouraged to continue improving their business reporting and to experiment with the types of information disclosed and the manner by which it is disclosed.

It is pertinent to note the following observations of the working group:

- (a) The Steering Committee encourages companies to provide expanded disclosures of meaningful business information. Expanded disclosures that increase 'transparency' provide benefits to companies, investors and the general economy.
- (b) Investors benefit from increased transparency, because it enables them to make more informed investment decisions. The economy benefits from the more effective allocation of capital, the investment effect of a lower cost of capital and more liquid capital markets.
- (c) Companies benefit from a lower average cost of capital. Enhanced disclosures reduce investors' risk of making poor investment decisions. A company's cost of capital includes a risk premium resulting from investors' uncertainty about the adequacy of the information available about the company. Increased transparency reduces that uncertainty premium.

Definitive quantification in reliable dollar figures of the benefits to companies of expanded disclosures is not possible. Nevertheless, the Steering Committee encourages academics and others to undertake research about the correlation between expanded disclosures and the cost of capital. In India, the practice of 'voluntary disclosure' is gaining momentum. Most common among voluntary disclosures are information on 'Economic Value Added (EVA)' valuation of intangibles including brand equity and human resources, and 'value added'.

Exercises Problems

1. Prepare final accounts of Yadadri Trader's as on 31.12.2018

Trial Balance as on 31.12.2018

Debit Balances	Amount (₹)	Credit Balances	Amount (₹)
Cash	4,200	Sales	20,000
Purchases	10,000	Interest	4,000
Carriage	1,000	Discount	3,500
Factory rent	1,200	Overdraft	2,500
Salaries & Wages	2,400	Capital	50,000
Machinery	6,000	Creditors	3,000
Discount	700		
Copyright	10,000		
Carriage on sales	400		
Clearing charges	300		
Bills Receivable	12,000		
Opening Stock	3,000		
Printing & Stationery	2,500		
Coal & Gas	800		
Debtors	10,000		
Drawings	1500		
Furniture	15,000		
Office Expenses	1,500		
Internet charges	500		
	<u>83,000</u>		<u>83,000</u>

Adjustments

(1) Closing stock: 6500, (2) Prepaid Salaries & Wages: 400, (3) Create 6% Provision for Bad & Doubtful Debts (4) Depreciation on Machinery: 10% (5) Interest on Capital: 6% (6) MD's Commission on Net Profit is 10% before charging such commission.

(Ans : GP: ₹ 10,200; Net Profit: ₹ 5,310; Balance Sheet: ₹ 62,900).

2. Prepare final Accounts of Srivasthava Traders as on 31-12-2018

Trial Balance as on 31.12.2018

Debit Balances	Amount (₹)	Credit Balances	Amount (₹)
Cash	4,000		
Opening Stock	2,100		
Wages	700		
Carriage on Purchases	600		
Carriage on Sales	400		
Audit Fee	800		
Drawings	4,500		
Debtors	15,000		
Freight	700		
Loose Tools	6,500		
Buildings	11,000		
Power & Fuel	500		
Salaries	850		
Purchases	10,000		
Sales Returns	1,000		
Goodwill	7,500		
Patents	5,000		
Postage & Stamps	850		
		Capital	40,000
		Creditors	5,000
		Interest Received In Adv.	250
		Bills payable	2,650
		Bank Overdraft	3,000
		Sales	16,000
		Rent Received	2,600
		Purchase Returns	500
		Bad Debts Reserve	2,000
	<u>72,000</u>		<u>72,000</u>

Adjustments

- 1) Closing stock value: ₹ 6000
- 2) Outstanding Salary: ₹ 450
- 3) Interest on Drawings: 10%
- 4) Provide Reserve for Doubtful Debts: 5% and Create Provision for Discount on Debtors 2%
- 5) Depreciation on Buildings: 10%
- 6) Goods worth of ₹ 2000 distributed as free samples.

(Ans : Gross Profit: ₹ 8,900; Net Profit: ₹ 6,465; Balance Sheet Total: ₹ 52,865).

3. From the following Trial Balance prepare Trading and Profit and Loss Account for the year ended 31st Dec. 1992 and Balance Sheet as on that date.

Particulars	Dr.	Cr.
Drawings	10,000	
Stock on 1-1-1992	46,000	
Purchases and purchases returns	1,50,200	600
Cash in hand	3,400	
Bank Balance	22,660	
Freehold premises	38,600	
Trade expenses	840	
Printing, Stationery and Advertising	1,640	
Professional charges	280	
Commission received	---	3,300
Investments as on 1st Jan @ 10%	4,000	
Interest on above	---	200
Sundry debtors and creditors	36,000	29,000
Wages	25,000	
Salaries	14,000	
Capital	1,14,000	
Income Tax	1,600	
Discount allowed and received	6,300	4,600
Sales returns and sales	550	2,08,950
Bills receivable/Bills payable	3,200	10,000
Office furniture	3,050	
Rent, Rates and Insurance	4,000	
Bad debts provision	670	
	<u>3,71,320</u>	<u>3,71,320</u>

Adjustments

1. Provide for wages ` 5,000.
2. Write off 5% depreciation on freehold premises and 10% on office furniture.
3. Insurance to the extent of ` 200 relates 1993.
4. Stock on 31-12-95 is ` 52,000.
5. Charge interest on capital at 5% and on drawings ` 300.
6. Further bad debts are ` 1,000.
7. Provide for doubtful debts @ 5% on sundry debtors.
8. Make provision for discount on debtors and reserve for discount on creditors @ 2%.

(Ans : Gross Profit ` 34,800 ; Net profit ` 6,440 ; Balance Sheet ` 1,57,660).

Short Question and Answers

1. Capital Expenditure

Ans :

Capital expenditure is the expenditure which is normally incurred for acquiring fixed assets or assets which increase the earning capacity of the business. It is non recurring in nature. The benefits of capital expenditure are not fixed for single year, they can be extended for number of years ahead. Purchase of fixed assets like furniture, machinery and buildings etc., are a few examples of capital expenditure. Here it is to be underlined that this expenditure is always shown at Assets side of the Balance Sheet.

2. Distinguish between Capital and Revenue Expenditure.

Ans :

S.No.	Nature	Capital Expenditure	Revenue Expenditure
1.	Source of expenditure	Capital expenditure is associated with the acquisition of fixed assets for business purpose.	Revenue expenditure is associated with the day to day business activities.
2.	Examples	Purchase of additional plant, building, purchase of patents, copy rights, goodwill etc.,	Administrative expenses, manufacturing and selling expenses, interest on loan etc.
3.	Purpose of expenditure	Capital expenditure enhances the earning capacity of the firm in long.	Revenue expenditure maintains the earning the earning capacity of the firm term.
4.	Nature of expenditure	Capital expenditure is a non recurring expense.	Revenue expense is a recurring expense.
5.	Accounting treatment	Capital expenditure is debited to the balance sheet of the firm.	Revenue expenditure is debited to the profit and loss account.
6.	Effect on income	Capital expenditure does not have any effect on business income of the present accounting period.	Revenue expenditure reduces the income of the current period,

3. Revenue Expenditure

Ans :

Revenue expenditure is recurring in nature and incurred in the normal course of business activities. This expenditure is spent for smooth running of daily operational transactions. The impact or benefit of revenue expenditure is restricted to only one accounting year, e.g., Office expenses such as rent, salaries, selling expenses like carriage outwards, advertisements etc. Hence all revenue expenses are always debited to trading account or Profit & Loss A/c.

4. Define Depreciation.

Ans :

The term depreciation is derived from the Latin words 'do' meaning down and 'pretium' meaning price. In common use it means putting down the value of an asset due to wear and tear, passage of time, obsolescence, etc.

Business is established for indefinite period. Fixed assets are constantly used in the business. The assets lose their value gradually due to their constant use. Loss in the value and utility of assets due to their constant use and expiry of time is termed as 'depreciation'.

It is very difficult to give a single definition of the term depreciation because under different situation this is handled differently and whatever seems to be correct in one situation may be improper in another. But even then some definitions are worth mentioning.

Definitions

- (i) **According to B.G Wickery** "Depreciation may be defined as the permanent decrease in the value of an asset through wear and tear in use or the passage of time."
- (ii) **According to J.R. Batliboi** "The term depreciation represents loss or diminution in the value of an asset consequent upon wear and tear, obsolescence, effluxion of time or permanent fall in market value."
- (iii) **According to Spicer and Peglar** "Depreciation may be defined as the measure of the exhaustion of the effective life of an asset from any cause during a given period."
- (iv) **According to The Institute of Chartered Accountants of England and Wales** "Depreciation is that part of the cost of fixed assets to its owner which is not recoverable when the asset is finally put out of use by him. Provision against this loss of capital is an integral cost of conducting the business during the effective commercial life of the asset and is not dependent upon the amount of profit earned."

5. What are the objectives of providing depreciation?

Ans :

The objectives of providing depreciation are :

- Ascertainment of true profits by charging depreciation to profit and loss account.
- Presentation of true financial position by showing the assets at their book values.
- Replacement of assets by setting aside a part of the profits of the business in the form of depreciation.

6. What are financial statements?

Ans :

Basically, financial statements are organised summaries of detailed information about the financial position and performance of an enterprise. Traditionally, the term "Financial Statements" are used to denote only two basic statements which are as under :

- (a) Balance sheet or position statement which shows the financial position of an enterprise at a particular point of time.
- (b) Trading and Profit and Loss Account or Income Statement which shows the results of business operations during an accounting period.

Nowadays, in addition to the foresaid two basic financial statements, a Statement of Retained Earnings and a Statement of Changes in the Financial Position (SCFP) are also prepared in practice.

7. Define Trading account

Ans :

Preparation of trading account is the first stage in final accounts. It is prepared to ascertain the 'Gross Profit or Gross Loss'. In other words, it is prepared to find out the difference between the actual cost of goods sold and sale proceeds. Generally the business organization purchases goods from others and incur certain expenditure and sell the same to earn profit. This process is known as trading activity. Hence trading account is prepared to know the results of trading activities carried during any specified accounting period.

Trading Account is a 'nominal account' in nature. All the trading expenses should be debited and trading incomes should be credited to this trading account. The balance in the trading account is either gross profit or gross loss.

Cost of Goods Sold = Purchase price of the goods + Expenses incurred on purchases

If opening stock of goods and closing stock of goods are given,

Cost of Goods Sold = Opening Stock + Net Purchases (Cash + Credit – Returns) + Direct expenses – Closing stock of goods

Gross Profit / Loss = Net Sales – Cost of Goods Sold

If the selling price of goods is more than cost price, it is known as gross profit. If the selling price of goods is less than cost price, it is known as gross loss. The gross profit or gross loss of trading account will be transferred to profit & loss account.

8. Balance sheet

Ans :

A Balance Sheet is a statement prepared with a view to measure the financial position of a business on a certain fixed date. The financial position of a concern is indicated by its assets on a given date and its liabilities on that date. Excess of assets over liabilities represent the capital and is indicative of the financial soundness of a company. A Balance Sheet is also described as a 'statement showing the sources and applications of capital'. It is a statement and not an account and prepared from real and personal accounts. The left hand side of the balance sheet may be viewed as a description of the sources from which the business has obtained the capital with which it currently operates and the right hand side as a description of the form in which that capital is invested on a specified date.

On the left hand side of the Balance Sheet, the several liability items describe how much capital was obtained from trade creditors, from banks, from bill holders and other outside parties. The owner's equity section shows the capital supplied by the owner.

Capital obtained from various sources has been invested according to management's best judgement of the optimum mix or combination of assets for the business. A certain fraction is invested in buildings, another fraction in stock, another fraction is retained as cash for current needs of the business and so on. The assets side of the Balance Sheet, therefore, shows the result of these management judgements as on the date of the Balance Sheet.

9. Explain Limitations of the Balance Sheet.

Ans :

Though the Balance Sheet is prepared by every organisation for disclosing its financial position, yet it is suffering from the following limitations :

1. Fixed assets are shown in the Balance Sheet at historical cost less depreciation upto date. A conventional Balance Sheet cannot reflect the true value of these assets. Again intangible assets are shown in the Balance Sheet at book values which may bear no relationship to market values.
2. Sometimes, Balance Sheet contains some assets which command no market value such as preliminary expenses, debenture discount, etc. The inclusion of these fictitious assets unduly inflate the total value of assets.
3. The Balance Sheet cannot reflect the value of certain factors such as skill and loyalty of staff.
4. A conventional Balance Sheet may mislead untrained readers in inflationary situations.
5. The value of majority number of current assets depend upon some estimates, so it cannot reflect the true financial position of the business.

10. Straight Line Method

Ans :

It is the simplest method of charging depreciation. In this, the depreciation is charged evenly every year throughout the effective life of the asset. The amount of depreciation is calculated by using the following formula:

$$\text{Depreciation} = \frac{\text{Original Cost of Assets} - \text{Estimated Scrap Value}}{\text{Life of Assets (Number of Accounting Periods)}}$$

For example, if an asset has been purchased for ` 1,00,000 and it will have scrap value of ` 10,000 at the end of the life after 10 years, the amount of the depreciation shall be calculated as follows:

$$\begin{aligned}\text{Depreciation} &= \frac{\text{` 1,00,000} - \text{` 10,000}}{10 \text{ years}} \\ &= \text{` 9,000 per year}\end{aligned}$$

11. External Auditor Report

Ans :

External audit report is an important source of information. External auditors evaluate the truth and fairness of financial statements and about the quality of financial statements. Comments and qualifications in audit report provide important information and independent opinion on financial statements. Usually, board of directors, in its report, comment on audit qualifications. Analysts often adjust numbers in financial adjustments before financial analysis to give effect to audit qualifications.

12. Diminishing Balance Method

Ans :

Under the written down value method, depreciation, according to a fixed percentage calculated upon the "original cost (in the first year) and written down value, (in subsequent years) of an asset, is written-off during each accounting period over the expected useful life of the asset. Under this method, the rate of depreciation remains constant year after year whereas the amount of depreciation goes on decreasing.

How to Calculate Depreciation under WDV Method: The rate of depreciation is calculated as follows:

$$R = \left[1 - \sqrt[n]{\frac{S}{C}} \right] \times 100$$

Where,

R = Rate of Depreciation (in %),

n = Useful life of the asset (in years)

S = Scrap value at the end of useful life of the asset

C = Cost of the asset

Choose the Correct Answers

1. Accounting is an act of [d]
(a) Recording (b) Classifying
(c) Summarizing (d) All the above
2. The accounts which are related to the properties and assets of the business are, [a]
(a) Real accounts (b) Nominal accounts
(c) Both a and b (d) Personal accounts
3. The modified accounting equation implies assets = [d]
(a) Liabilities x Capital (b) Liabilities - Capital
(c) Capital - Liabilities (d) Liabilities + capital
4. _____ is a statement in which debit side and credit side balances are verified. [b]
(a) Income statement (b) Trial balance
(c) Balance sheet (d) Trading account
5. _____ helps in providing accounting information to the management for taking effective decisions [a]
(a) Management accounting (b) Financial accounting
(c) Cost accounting (d) None
6. The system which generates the company's income statement and balance sheet and which is responsible for managing new and old accounts is, [c]
(a) Accounts receivable system (b) Investment managing system
(c) General Ledger system (d) None
7. The end users of accounting information are, [c]
(a) Creditors (b) Managers
(c) Both A and B (d) None
8. Which of the following is not included in a balance sheet ? [b]
(a) Accounts receivable (b) Sales
(c) Accounts payable (d) Cash
9. The process of transferring transaction effects into the appropriate accounts is referred to as, [d]
(a) Closing (b) Journalizing
(c) Recording (d) Posting
10. A listing of a business entity's assets, liabilities and owner's equity as of a specific date is, [a]
(a) Balance sheet (b) Income statement
(c) Statement of owner's equity (d) Statement of cash flow

Fill in the blanks

1. _____ is regarded as the language of business.
2. Accounting is done in business to maintain a _____ and _____ record of financial transaction.
3. All financial transaction of business are recorded in a book known as _____.
4. _____ is a book in which all the recorded entries are classified.
5. _____ explains the relationship of equities and assets.
6. In _____ system of accounting only cash related entries are recorded.
7. _____ is a practice where in business transactions are recorded in a significant and organized way.
8. The process which starts with transactions taking place and ends up with preparation of final accounts is known as _____.
9. _____ system explains the two fold effect of every transaction.
10. All the transactions are firstly recorded in journal so it is called as _____.

ANSWERS

1. Accounting
2. Systematic and accurate
3. Journal
4. Ledger
5. Accounting equation
6. Cash
7. Book-keeping
8. Accounting process
9. Double entry system
10. Books of prime entry

UNIT III

Financial Statement analysis – Ratio analysis – Rationale and utility of ratio analysis –classification of ratios -calculation and interpretation of ratios-liquidity ratios, activity/turnover ratios, Profitability ratios, leverage and structural ratios (Including Numerical Problems)- Advantages and disadvantages; common size statement analysis.

3.1 FINANCIAL STATEMENT ANALYSIS

Q1. What do you mean by Financial Statement analysis? Explain the objectives and need of Financial Statement analysis.

Ans : (June-18)

Financial statement analysis is an evaluative method of determining the past, current and projected performance of a company. Financial statement analysis focuses on the evaluation of past performance of the business firm in terms of liquidity, profitability, operational efficiency and growth potentiality. Financial statements analysis includes the method use in assessing and interpreting the result of past performance and current financial position as they relate to particular factors of interest in investment decisions. Therefore financial statement analysis is an important means of assessing past performance and in forecasting and planning future performance.

Objectives

1. Assessment of Past Performance

Past performance is a good indicator of future performance. Investors or creditors are interested in the trend of past sales, cost of goods sold, operating expenses, net income, cash flows and return on investment. These trends offer a means for judging management's past performance and are possible indicators of future performance.

2. Assessment of Current Position

Financial statement analysis shows the current position of the firm in terms of the types of

assets owned by a business firm and the different liabilities due against the enterprise.

3. Prediction of Profitability and Growth Prospects

Financial statement analysis helps in assessing and predicting the earning prospects and growth rates which are used by investors while comparing investment alternatives and other users in judging earning potential of business enterprise.

4. Prediction of Bankruptcy and Failure

Financial statement analysis is an important tool in assessing and predicting bankruptcy and probability of business failure.

5. Assessment of the Operational Efficiency

Financial statement analysis helps to assess the operational efficiency of the management of a company. The actual performance of the firm which are revealed in the financial statements can be compared with some standards set earlier and the deviation of any between standards and actual performance can be used as the indicator of efficiency of the management.

Need

1. It helps us to know the reasons for relative changes either in profitability or in the financial position as a whole.
2. It also help to know both the short-term liquidity position vis-a-vis working capital position; as also the long-term liquidity and solvency position of a firm.
3. It also highlights the operating efficiency and the present profit-earning capacity of the firm as a whole.

4. High Courts, Supreme Court, Arbitrators also require financial statements to settle various disputed matters.
5. Various financial journal (viz. R.B.I. Bulletins), newspapers etc. also require financial statements for analysing and scrutinizing the financial position of a firm for the readers.

Q2. Explain the importance of Financial Statement Analysis.

Ans : (June-18)

The financial statement analysis is important for different reasons:

1. Holding of Share

Shareholders are the owners of the company. They may have to take decisions whether they have to continue with the holdings of the company's share or sell them out. The financial statement analysis is important as it provides meaningful information to the shareholders in taking such decisions.

2. Decisions And Plans

The management of the company is responsible for taking decisions and formulating plans and policies for the future. They, therefore, always need to evaluate its performance and effectiveness of their action to realise the company's goal in the past. For that purpose, financial statement analysis is important to the company's management.

3. Extension Of Credit

The creditors are the providers of loan capital to the company. Therefore they may have to take decisions as to whether they have to extend their loans to the company and demand for higher interest rates. The financial statement analysis provides important information to them for their purpose.

4. Investment Decision

The prospective investors are those who have surplus capital to invest in some profitable opportunities. Therefore, they often have to decide whether to invest their

capital in the company's share. The financial statement analysis is important to them because they can obtain useful information for their investment decision making purpose.

Q3. State the users of Financial Statement Analysis

(OR)

Explain the managerial uses of Financial Statement Analysis.

Ans : (Jan.-20)

There are a number of users of financial statement analysis. They are:

1. Creditors

Anyone who has lent funds to a company is interested in its ability to pay back the debt, and so will focus on various cash flow measures.

2. Investors

Both current and prospective investors examine financial statements to learn about a company's ability to continue issuing dividends, or to generate cash flow, or to continue growing at its historical rate (depending upon their investment philosophies).

3. Management

The company controller prepares an ongoing analysis of the company's financial results, particularly in relation to a number of operational metrics that are not seen by outside entities (such as the cost per delivery, cost per distribution channel, profit by product, and so forth).

4. Regulatory Authorities

If a company is publicly held, its financial statements are examined by the Securities and Exchange Commission (if the company files in the United States) to see if its statements conform to the various accounting standards and the rules of the SEC.

Q4. What are the problems associated with Financial Statement Analysis.**Ans :**

While financial statement analysis is an excellent tool, there are several issues to be aware of that can interfere with your interpretation of the analysis results. These issues are:

- 1. Comparability between Periods :** The company preparing the financial statements may have changed the accounts in which it stores financial information, so that results may differ from period to period. For example, an expense may appear in the cost of goods sold in one period, and in administrative expenses in another period.
- 2. Comparability between Companies :** An analyst frequently compares the financial ratios of different companies in order to see how they match up against each other. However, each company may aggregate financial information differently, so that the results of their ratios are not really comparable. This can lead an analyst to draw incorrect conclusions about the results of a company in comparison to its competitors.
- 3. Operational Information :** Financial analysis only reviews a company's financial information, not its operational information, so you cannot see a variety of key indicators of future performance, such as the size of the order backlog, or changes in warranty claims. Thus, financial analysis only presents part of the total picture.

Q5. What are the tools and techniques of financial analysis?**(OR)**

What are the different techniques used to analysis and interpretation of financial statement.

Ans : (Aug.-21, Jan.-20, Nov.-20)

Important tools or techniques of financial statement analysis are as follows.

1. Comparative Statement or Comparative Financial and Operating Statements.

2. Common Size Statements.
3. Trend Ratios or Trend Analysis.
4. Average Analysis.
5. Statement of Changes in Working Capital.
6. Fund Flow Analysis.
7. Cash Flow Analysis.
8. Ratio Analysis.
9. Cost Volume Profit Analysis

A brief explanation of the tools or techniques of financial statement analysis presented below.

1. Comparative Statements

Comparative statements deal with the comparison of different items of the Profit and Loss Account and Balance Sheets of two or more periods. Separate comparative statements are prepared for Profit and Loss Account as Comparative Income Statement and for Balance Sheets.

As a rule, any financial statement can be presented in the form of comparative statement such as comparative balance sheet, comparative profit and loss account, comparative cost of production statement, comparative statement of working capital and the like.

2. Comparative Income Statement

Three important information are obtained from the Comparative Income Statement. They are Gross Profit, Operating Profit and Net Profit. The changes or the improvement in the profitability of the business concern is find out over a period of time. If the changes or improvement is not satisfactory, the management can find out the reasons for it and some corrective action can be taken.

3. Comparative Balance Sheet

The financial condition of the business concern can be find out by preparing comparative balance sheet. The various items of Balance sheet for two different periods are used. The assets are classified as current assets and fixed assets for comparison. Likewise, the liabilities

are classified as current liabilities, long term liabilities and shareholders' net worth. The term shareholders' net worth includes Equity Share Capital, Preference Share Capital, Reserves and Surplus and the like.

4. Common Size Statements

A vertical presentation of financial information is followed for preparing common-size statements. Besides, the rupee value of financial statement contents are not taken into consideration. But, only percentage is considered for preparing common size statement.

The total assets or total liabilities or sales is taken as 100 and the balance items are compared to the total assets, total liabilities or sales in terms of percentage. Thus, a common size statement shows the relation of each component to the whole. Separate common size statement is prepared for profit and loss account as Common Size Income Statement and for balance sheet as Common Size Balance Sheet.

5. Trend Analysis

The ratios of different items for various periods are find out and then compared under this analysis. The analysis of the ratios over a period of years gives an idea of whether the business concern is trending upward or downward. This analysis is otherwise called as Pyramid Method.

6. Average Analysis

Whenever, the trend ratios are calculated for a business concern, such ratios are compared with industry average. These both trends can be presented on the graph paper also in the shape of curves. This presentation of facts in the shape of pictures makes the analysis and comparison more comprehensive and impressive.

7. Statement of Changes in Working Capital

The extent of increase or decrease of working capital is identified by preparing the statement of changes in working capital. The amount of net working capital is calculated by

subtracting the sum of current liabilities from the sum of current assets. It does not detail the reasons for changes in working capital.

8. Fund Flow Analysis

Fund flow analysis deals with detailed sources and application of funds of the business concern for a specific period. It indicates where funds come from and how they are used during the period under review. It highlights the changes in the financial structure of the company.

9. Cash Flow Analysis

Cash flow analysis is based on the movement of cash and bank balances. In other words, the movement of cash instead of movement of working capital would be considered in the cash flow analysis. There are two types of cash flows. They are actual cash flows and notional cash flows.

10. Ratio Analysis

Ratio analysis is an attempt of developing meaningful relationship between individual items (or group of items) in the balance sheet or profit and loss account. Ratio analysis is not only useful to internal parties of business concern but also useful to external parties. Ratio analysis highlights the liquidity, solvency, profitability and capital gearing.

11. Cost Volume Profit Analysis

This analysis discloses the prevailing relationship among sales, cost and profit. The cost is divided into two. They are fixed cost and variable cost. There is a constant relationship between sales and variable cost. Cost analysis enables the management for better profit planning.

3.2 RATIO ANALYSIS

Q6. What is Ratio Analysis? Explain the objectives of ratio analysis?

Ans : (Aug.-18, Imp.)

According to Myers, "Ratio analysis is a study of relationship among the various financial factors in a business".

Thus, ratio analysis measures the profitability, efficiency and financial soundness of the business.

Ratio analysis is to present the figure of financial statement in simple and intangible form. Ratio analysis is to present the figure of financial statement in simple and intangible form. Ratio analysis, in this way, is the process of establishing meaningful relationship between two figures and set of financial statement.

Objectives

The objectives of ratio analysis are as follows:

1. **Measuring the Profitability:** The profitability of the business can be measured by calculating gross profit, net profit, expenses ratio and other.
2. **Judging the Operational Efficiency of Business:** The operational efficiency of the business can be ascertained by calculating operating ratio.
3. **Assessing the Solvency of the Business:** It can be ascertained whether the firm is solvent or not by calculating solvency ratio. Solvency ratios show relationship between total liabilities and total assets. If total assets are lesser than the total liabilities it shows unsound position of the business.
4. **Measuring Short and Long-Term Financial Position of the Company:** Ratio analysis helps in knowing the short term and long term financial position of the business by calculating various ratios. Current and liquid ratio indicates short-term financial position, whereas debt equity ratio, fixed asset ratio and proprietary ratio shows long-term financial positions.
5. **Facilitating Comparative Analysis of the Performance:** Every firm has to compare its present performance with the previous and discover the plus and minus points. These points can be located by the calculation of different ratio. Comparison with the performance of other competitive firms can also be made.

Q7. Explain the nature of ratio analysis.

Ans : (Aug.-18)

In financial analysis, ratio is used as an index of yardstick for evaluating the financial position and performance of the firm. It is a technique of analysis and interpretation of financial statements. Ratio analysis helps in making decisions as it helps in establishing relationship between various ratios and interpret thereon. Ratio analysis helps analysts to make quantitative judgement about the financial position and performance of the firm. Ratio analysis involves following steps:

1. Relevant data selection from the financial statements related to the objectives of the analysis.
2. Calculation of required ratios from the data and presenting them either in pure ratio form or in percentage.
3. Comparison of derived different ratios with :
 - (i) The ratio of the same concern over a period of years to know upward or downward trend or static position to help in estimating the future, or
 - (ii) The ratios of another firm in same line, or
 - (iii) The ratios of projected financial statements, or
 - (iv) The ratios of industry average, or
 - (v) The predetermined standards, or
 - (vi) The ratios between the departments of the same concern assessing either the financial position or the profitability or both.

Q8. What are the Guidelines or Precautions for use of Ratios ?

Ans :

The calculation of ratios may not be difficult task but their use is not easy. The information on which these are based, the constraints of financial statements, objective for using them, the calibre of the analyst, etc. are important factors which influence the use of ratios. Following guidelines or factors may be kept in mind while interpreting various ratios.

1. Accuracy of Financial Statements

The ratios are calculated from the data available in financial statements. The reliability of ratios is linked to the accuracy of information in these statements. Before calculating ratios one should see whether proper concepts and conventions have been used for preparing financial statements or not. These statements should also be properly audited by competent auditors. The precautions will establish the reliability of data given in financial statements.

2. Objective or Purpose of Analysis

The type of ratios to be calculated will depend upon the purpose for which these are required. If the purpose is to study current financial position then ratios relating to current assets and current liabilities will be studied. The purpose of 'user' is also important for the analysis of ratios. A creditor, a banker, an investor, a shareholder, all have different objects for studying ratios. The purpose or object for which ratios are required to be studied should always be kept in mind for studying various ratios. Different objects may require the study of different ratios.

3. Selection of Ratios

Another precaution in ratio analysis is the proper selection of appropriate ratios. The ratios should match the purpose for which these are required. Calculation of large number of ratios without determining their need in the present context may confuse the things instead of solving them. Only those ratios should be selected which can throw proper light on the matter to be discussed.

4. Use of Standards

The ratios will give an indication of financial position only when discussed with reference to certain standards. Unless otherwise these ratios are compared with certain standards one will not be able to reach at conclusions. These standards may be rule of thumb as in case of current ratio (2:1) and acid-test ratio (1 : 1), may be industry standards, may be budgeted or projected ratios, etc. The comparison of calculated ratios with the

standards will help the analyst in forming his opinion about financial situation of the concern.

5. Calibre of the Analyst

The ratios are only the tools of analysis and their interpretation will depend upon the calibre and competence of the analyst. He should be familiar with various financial statements and the significance of changes, etc. A wrong interpretation may create havoc for the concern since wrong conclusions may lead to wrong decisions. The utility of ratios is linked to the expertise of the analyst.

6. Ratios Provide Only a Base

The ratios are only guidelines for the analyst. He should not base his decisions entirely on them. He should study any other relevant information, situation in the concern, general economic environment, etc. before reaching final conclusions. The study of ratios in isolation may not always prove useful. A businessman will not afford a single wrong decision because it may have far-reaching consequences. The interpreter should use the ratios as guide and may try to solicit any other relevant information which helps in reaching a correct decision.

3.2.1 Rationale and utility of ratio analysis**Q9. Explain about Rational and Utility of Ratio Analysis.**

Ans :

Ratio analysis plays a significant role in ascertaining the financial performance of a concern. The following are the various users of ratio analysis.

i) Management

Ratio analysis-helps a management to reap many managerial uses from it. They are,

- a) Ratio analysis helps a management assess the financial position of the firm and making necessary decisions from the information available in the financial statement.

- b) It facilitates in financial forecasting' and financial planning.
- c) It helps in communicating the financial strength and weakness of a firm in a more easy and understandable form.
- d) It helps in the coordination of activities which is the most important functions of business management.
- e) It facilitates in effective control of the business by revealing the loop holes in it;
- f) Ratio analysis also serves many other purposes to the management by becoming an essential part in budgetary control and standard costing.

ii) Investors/Shareholders

Ratio analysis helps an investors or a shareholder to assess the financial position of the concern in which he is going to invest. It warns him in making up his mind whether the present financial position of the concern warrants him for further investment or not. The calculation of various ratios help him to do this.

iii) Creditors/Suppliers

Ratio analysis helps the creditors or suppliers who extend short-term credit to the concern, to know whether the financial position of the concern warrants their payment at a specified time or not.

iv) Employees

Ratio analysis also helps the employees who are interested in knowing the financial position of the concern. Various profitability ratios facilitate them to know for the increase of their wages and other benefits.

v) Government

- Ratio analysis aid the government in assessing the financial health of different industries and prepare its future policies.
- With all the utilities to various users, ratio analysis Serves as a powerful tool for ascertaining the financial position of a concern.

Q10. Explain the importance of ratio analysis

Ans : (Aug.-18)

Ratio analysis is an important tool for analyzing the company's financial performance. The following are the important advantages of the accounting ratios.

1. Analyzing Financial Statements

Ratio analysis is an important technique of financial statement analysis. Accounting ratios are useful for understanding the financial position of the company. Different users such as investors, management bankers and creditors use the ratio to analyze the financial situation of the company for their decision making purpose.

2. Judging Efficiency

Accounting ratios are important for judging the company's efficiency in terms of its operations and management. They help to judge how well the company has been able to utilize its assets and earn profits.

3. Locating Weakness

Accounting ratios can also be used in locating weakness of the company's operations even though its overall performance may be quite good. Management can then pay attention to the weakness and take remedial measures to overcome them.

4. Formulating Plans

Although accounting ratios are used to analyze the company's past financial performance, they can also be used to establish future trends of its financial performance. As a result, they help formulate the company's future plans.

5. Comparing Performance

It is essential for a company to know how well it is performing over the years and as compared to the other firms of the similar nature. Besides, it is also important to know how well its different divisions are performing among themselves in different years. Ratio analysis facilitates such comparison.

3.2.2 Advantages and Disadvantages**Q11. What are the advantages and limitations of ratio analysis.**

Ans : (Aug.-21, Jan.-20, Jan.-19, Imp.)

Advantages

- (i) Ratio analysis will help validate or disprove the financing, investment and operating decisions of the firm. They summarize the financial statement into comparative figures, thus helping the management to compare and evaluate the financial position of the firm and the results of their decisions.
- (ii) It simplifies complex accounting statements and financial data into simple ratios of operating efficiency, financial efficiency, solvency, long-term positions etc.
- (iii) Ratio analysis help identify problem areas and bring the attention of the management to such areas. Some of the information is lost in the complex accounting statements, and ratios will help pinpoint such problems.
- (iv) Allows the company to conduct comparisons with other firms, industry standards, intra-firm comparisons etc. This will help the organization better understand its fiscal position in the economy.

Limitations

Though ratio analysis is a powerful tool for analyzing the financial position of a firm, it suffers from the following limitations.

- i) As ratios are calculated based on the historical data or past performance, they may not necessarily provide the correct information that is useful in decision-making.
- ii) As there are no particular standards or rules of thumb for all the ratios, it is difficult to interpret accurate results.
- iii) In order to draw correct interpretations, a single ratio may not be helpful. For this purpose, a number of ratios are to be calculated which is likely to confuse the financial analyst than to help him in making any meaningful conclusions.

- iv) Changes in the accounting procedures by the firms may mislead the ratio analysis. For example, a change in the methods of valuating inventory from FIFO to LIFO increases the cost of sales and decreases the value of closing stock. This results in unfavourable stock turnover ratio and gross profit ratio.
- v) In inflationary conditions, the accounting data of several years cannot be compared and therefore analysis based on such data is not accurate.
- vi) As ratio analysis is purely quantitative in nature, other aspects such as managerial efficiency, employee performance cannot be interpreted.
- vii) Comparison of ratios of one firm to the other in an industry is not possible due to their differences in sizes, accounting procedures etc.
- viii) As changes in price is not considered while calculating ratios, this may adversely affect the interpretation.

In spite of these limitations, ratio analysis is considered as the powerful tool for analyzing the financial statements.

3.3 CLASSIFICATION OF RATIOS-CALCULATION AND INTERPRETATION OF RATIOS
Q12. Explain about different types of ratios used in analyzing financial statements.

Ans :

Ratios are classified in a number of ways, in view of the requirement of various users of the ratios, one may classify the ratios into the following types :

1. Liquidity Ratios
2. Activity/turnover Ratios
3. Profitability Ratios
4. Leverage and Structural Ratios

3.3.1 liquidity ratios**Q13. What is liquidity ratio. Explain various types of liquidity ratios.****(OR)****Explain about liquidity ratios****Ans :****(Feb.-17)**

Liquidity refers to the ability of a concern to meet its current obligations as and when these become due. Liquidity ratios are calculated to measure short-term financial soundness of the business. The short-term obligations are met by realizing amounts from current, floating or circulating assets. The current assets should either be liquid or near liquidity. These should be convertible into cash for paying obligations of short-term nature. The sufficiency or insufficiency of current assets should be assessed by comparing them with short-term (current) liabilities. If current assets can pay off current liabilities, then liquidity position will be satisfactory.

On the other hand, if current liabilities may not be easily met out of current assets then liquidity position will be bad. The bankers, suppliers of goods and other short-term creditors are interested in the liquidity of the concern. They will extend credit only if they are sure that current assets are enough to pay out the obligations. To measure the liquidity of a firm, the following ratios can be calculated:

1. Current Ratio or Working Capital Ratio
2. Quick or Acid Test or Liquid Ratio
3. Absolute Liquid Ratio or Cash Position Ratio

Note

The ideal current ratio is 2:1 The ideal quick ratio is 1:1 The ideal cash ratio is 0.5:1

1. Current Ratio**Meaning**

This ratio establishes a relationship between current assets and current liabilities.

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.

Components

There are two components of this ratio which are as under:

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

Cash Balance	Bank Balance
Marketable Securities	Debtors (less Provision)
Bills Receivable (less Provisions)	Stock of all types, viz., Raw Materials.
Prepaid Expenses	Work-in-progress. Finished Goods.
Incomes accrued but not due	Short-term Loans and Advances
Advance Payment of tax	(Debit Balances)
Tax reduced at source (Debit Balance)	Incomes due but not received

Note: The 'provision of bad and doubtful debts/bills' is deducted from the total amount of trade debtors/bills receivable in order to ascertain the realizable value of trade debtors/bills receivable.

- (ii) **Current Liabilities:** Current Liabilities are those obligations which are payable within a short period of generally one year and include the following:

Creditors for Goods Creditors for Expenses

Creditors for goods	Creditors for expenses
Bills Payable	Bank Overdraft
Short-term Loans and Advances	Income received-in-advance
Provision for Tax	Unclaimed dividend

Short-term Loans and Advances Income received-in-advance Provision for Tax Unclaimed dividend

Computation: This ratio is computed by dividing the current assets by the current liabilities. This ratio is usually expressed as a pure ratio **for example**, 2:1. In the form of a formula, this ratio may be expressed as under:

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

Interpretation of Current Ratio: A relatively high current ratio is an indication that the firm is liquid and has the ability to pay its current obligations in time as and when they become due.

On the other hand, a relatively low current ratio represents that the liquidity position of the firm is not good and the firm shall not be able to pay its current liabilities in time without facing difficulties.

A ratio equal or near to the rule of thumb of 2:1, i.e., current assets double the current liabilities is considered to be satisfactory.

The idea of having doubled the current assets as compared to current liabilities is to provide for delays and losses in the realization of current assets.

However, the rule of 2:1 should not be blindly followed while making interpretation of the ratio, because firms having less than 2:1 ratio may be having a better liquidity than even firms having more than 2:1 ratio.

This is so because the current ratio measures only the quantity of current assets and not quality of current assets.

A high current ratio may not be favorable due to the following reasons:

- i) There may be slow moving stocks. The stocks will pile up due to poor sale.
- ii) The figures of debtors may go up because debt collection is not satisfactory.
- iii) The cash or bank balances may be lying idle because of insufficient investment opportunities.

On the other hand, a low current ratio may be due to the following reasons:

- i) There may not be sufficient funds to pay off liabilities.
- ii) The business may be trading beyond its capacity. The resources may not warrant the activities.

2. Quick Ratio

Meaning

This ratio establishes a relationship between quick assets and current liabilities.

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.

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:
- a) Cash Balances
 - b) Bank Balances
 - c) Marketable Securities Debtors
 - d) Bills Receivable
 - e) Short-term Loans and
 - f) Advances

- (ii) **Current Liabilities:** (as explained earlier in Current Ratio)

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:

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

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.

3. Absolute Liquid Ratio**Meaning**

Although receivables, debtors and bills receivable are generally more liquid than inventories, yet there may be doubts regarding their realization into cash immediately or in time.

Objective

The objective of computing this ratio is to calculate it (absolute liquid ratio) together with current ratio and acid test ratio so as to exclude even receivables from the current assets and find out the absolute liquid assets.

Components

There are two components of this ratio which are as under:

- (i) **Absolute liquid assets:** Absolute liquid assets include cash in hand and at bank and marketable securities or temporary investments.
- (ii) **Current liabilities:** As explained in current ratio.

Computation

This ratio is computed by dividing absolute liquid assets by current liabilities. The acceptable norm for this ratio is 50% or 0.5:1 or 1:2, i.e. Re. 1 worth absolute liquid assets are considered adequate to pay `2 worth current liabilities in time as all the creditors are not expected to demand cash at the same time and then cash may also be realized from debtors and inventories.

In the form of formula this ratio may be expressed as under:

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

3.2.2 Activity/turnover ratios**Q14. Explain briefly about various activity ratios?**

Ans :

Activity Ratios

Funds are invested in various assets in business to make sales and earn profits. The efficiency with which assets are managed directly affects the volume of sales. The better the management of assets, the larger is the amount of sales and the profits. Activity ratios measure the efficiency or effectiveness with which a firm manages its resources or assets. These ratios are also called turnover ratios because they indicate the speed with which assets are converted or turned over into sales. It includes the following ratios:

1. Capital Turnover Ratio
2. Fixed Assets Turnover Ratio
3. Working Capital Turnover Ratio
4. Stock Turnover Ratio
5. Debtors Turnover Ratio (or Receivables Turnover Ratio).
6. Creditors Turnover Ratio (or Payables Turnover Ratio).

1. Capital Turnover Ratio**Meaning**

This ratio establishes a relationship between net sales and capital employed.

Objective

The objective of computing this ratio is to determine the efficiency with which the capital employed is utilized.

Components

There are two components of this ratio which are as under:

1. Net Sales
2. Capital Employed

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:

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

Net sales = Gross Sales – Sales return

Capital Employed = Long-term debt + Shareholder's Fund 1

2. Fixed Assets Turnover Ratio

Meaning

This ratio establishes a relationship between net sales and fixed assets.

Objective

The objective of computing this ratio is to determine the efficiency with which the fixed assets are utilized.

Components

There are two components of this ratio which are as under:

1. Net Sales
2. Net Fixed (operating) Assets

Note: An advance for purchase of a fixed asset is not an operating fixed asset.

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:

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Net Sales}}{\text{Net Total Fixed Assets}} = \frac{\text{Cost of goods sold}}{\text{Net Total Fixed Assets}}$$

Net Sales = Gross Sales – Sales Return

Net Fixed (operating) Assets = Gross Fixed Assets – Depreciation

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 publicity, etc.

3. Working Capital Turnover Ratio

Meaning

This ratio establishes a relationship between net sales and working capital.

The working capital is taken as:

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

Objective

The objective of working capital turnover ratio is to indicate the velocity of the utilization of net working capital. This ratio indicates the number of times the working capital is turned over in the course of a year.

This ratio measures the efficiency with which the working capital is being used by a firm.

Components

The components of this ratio are as under:

1. Net Sales
2. Working Capital

Computation

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

$$\text{Working Capital Turnover Ratio} = \frac{\text{Net Sales}}{\text{Working Capital}} = \frac{\text{Cost of goods sold}}{\text{Net Working Capital}}$$

Net Sales = Gross Sales – Sales return

Working Capital = Current Assets – Current Liabilities

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.

4. Stock Turnover Ratio**Meaning**

This ratio establishes a relationship between costs of goods sold and average inventory.

Objective

The objective of computing this ratio is to determine the efficiency with which the inventory is utilized.

Components

There are two components of this ratio which are as under:

- 1) Cost of Goods Sold
- 2) Average Inventory

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:

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

Cost of Goods sold = Sales – Gross Profit

or

Cost of Goods sold = Opening Stock + Purchases + Direct Expenses – Closing Stock

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{\text{Average Stock}}$$

Note:

- i) If opening stock is not known, closing stock can be taken.
- ii) If there is any difficulty in calculating cost of goods sold, then

$$\text{Stock Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Stock}}$$

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, call 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 a satisfactory level.

Inventory Conversion Period (Stock Velocity)

It may also be of interest to see average time taken for clearing the stocks. This can be possible by calculating inventory conversion period. This period is calculated by dividing the number of days by inventory turnover. The formula may be as:

$$\text{Inventory Conversion Period} = \frac{12 \text{ months} / 52 \text{ weeks} / 365 \text{ days}}{\text{Stock Turnover Ratio}}$$

5 Debtors Turn over Ratio/Receivables Turn over Ratio**Meaning**

This ratio establishes a relationship between net credit sales and average trade debtors.

Objective

The objective of computing this ratio is to determine the efficiency with which the trade debtors are managed.

Components

There are two components of this ratio which are as under:

1. Net Credit Sales
2. Average Trade Debtors

Computation

This ratio is computed by dividing the net credit sales by average trade debtors. This ratio is usually expressed as 'x' number of times. In the form of a formula, this ratio may be expressed as under:

$$\text{Debtors Turn over Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Trade Debtors}}$$

$$\text{Net Credit Sales} = \text{Gross Credit Sales} - \text{Sales Returns}$$

$$\text{Trade Debtors} = \text{Sundry Debtors} + \text{Bills Receivables and Accounts Receivables}$$

$$\text{Average Trade Debtors} = \frac{\text{Opening Trade Debtors} + \text{Closing Trade Debtors}}{2}$$

Interpretation

It indicates the number of times the debtors are turned over during a year. Generally, the higher the value of debtor's turnover the more efficient is the management of debtors/sales or more liquid are the debtors. Similarly, low debtors turnover implies inefficient management of debtors/sales and less liquid debtors. But a precaution is needed while interpreting a very high debtors turnover ratio because a very high ratio may imply a firm's inability due to lack of resources to sell on credit thereby losing sales and profits. There is no 'rule of thumb' which may be used as a norm to interpret the ratio as it may be different from firm to firm, depending upon the nature of business. This ratio should be compared with ratios of other firms doing similar business and a trend may also be found to make a better interpretation of the ratio.

Debt Collection Period (or Debtors' Velocity)

The debt collection period represents the average number of days for which a firm has to wait before its receivables are converted into cash. The ratio can be calculated as follows:

$$i) \quad \text{Debt Collection Period} = \frac{\text{Average Trade Debtors (Drs + B/R)}}{\text{Sales per day}}$$

$$ii) \quad \text{Sales per day} = \frac{\text{Net Sales}}{\text{No. of working days}}$$

or Debt Collection Period

$$= \frac{\text{Average Trade Debtors}}{\frac{\text{Net Sales}}{\text{No. of working days}}} = \frac{\text{Average Trade Debtors} \times \text{No. of working days}}{\text{Net Sales}}$$

If the period is in months:

$$\text{Debt Collection Period} = \frac{\text{Average Trade Debtors} \times \text{No. of Months}}{\text{Net Sales}}$$

6. Creditors Turnover Ratio/Payables Turnover Ratio

Meaning

This ratio establishes a relationship between net credit purchases and average trade creditors.

Objective

The objective of computing this ratio is to determine the efficiency with which the creditors are managed.

Components

There are two components of this ratio which are as under:

1. Net credit Purchases
2. Average Trade Creditors

Computation

This ratio is computed by dividing the net credit purchases by average trade creditors. This ratio is usually expressed as 'x' number of times. In the form of formula, this ratio may be expressed as under:

$$\text{Creditors Turnover Ratio} = \frac{\text{Net Credit Purchases}}{\text{Average Trade Creditors}}$$

$$\text{Net credit Purchases} = \text{Gross Credit Purchases} - \text{Purchases Returns}$$

$$\text{Average Trade Creditor} = \frac{\text{Opening Trade Creditor} + \text{Closing Trade Creditor}}{2}$$

Interpretation

The average payment period ratio represents the average number of days taken by the firm to pay its creditors. Generally, lower the ratio, the better is the liquidity position of the firm and higher the ratio, less liquid is the position of the firm. But a higher payment period also implies greater credit period enjoyed by the firm and consequently larger the benefit reaped from credit suppliers. But one has to be careful in interpreting this ratio, as higher ratio may also imply lesser discount facilities availed or higher prices paid for the goods purchased on credit. To make correct interpretation of this ratio, a comparative analysis of different firms in the same industry and the trend may be found for various years.

Debt Payment Period (or Creditors' Velocity)

This period shows an average period for which the credit purchases remain outstanding or the average credit period actually availed of.

$$\begin{aligned} \text{Debt Payment Period} &= \frac{\text{Average Trade Creditors}}{\text{Average Net Credit Purchases Per day}} \\ &= \frac{12 \text{ months} / 52 \text{ weeks} / 365 \text{ days}}{\text{Creditors Turnover Ratio}} \end{aligned}$$

$$\text{Average Net Credit Purchases Per day} = \frac{\text{Net Credit Purchases for the year}}{\text{No. of working days in the year}}$$

7. Total Assets Turnover Ratio**Meaning**

This ratio is the relationship between sales and total asset.

Objective

The objective is to measure the overall performance and activity of the business organization.

Computation

It is computed by dividing sales by total assets. The following formula is applied to compute this ratio:

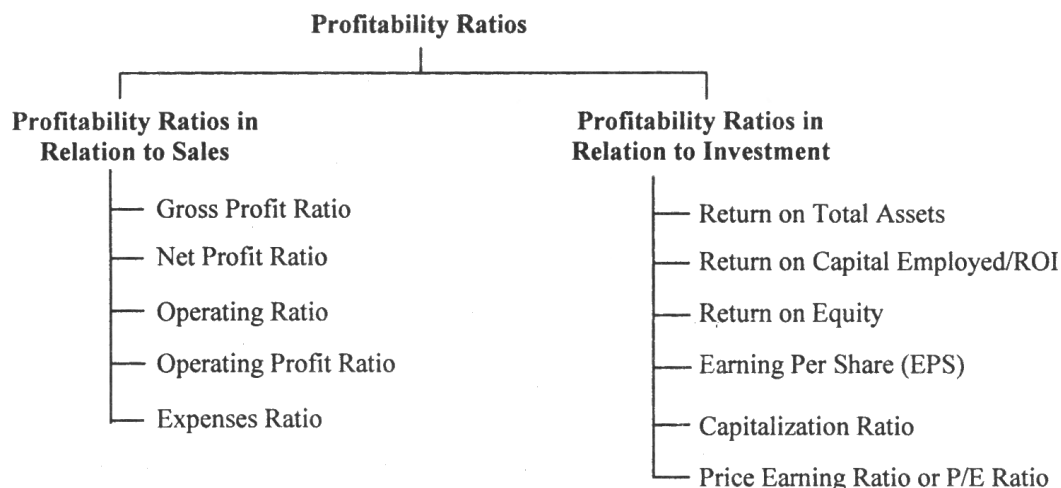
$$\text{Total Assets Turnover} = \frac{\text{Sales}}{\text{Total Assets}}$$

3.3.3 Profitability ratios

Q15. Explain different types of profitability ratios.

Ans :

The primary objective of a business undertaking is to earn profits. Profit earning is considered essential for the survival of the business. A business needs profits not only for its existence but also for expansion and diversification. "Profits are thus, a useful measure of overall efficiency of a business. Profits to the management are the test of efficiency and a measurement of control; to owners, a measure of worth of their investment; to the creditors, the margin of safety; to employees, a source of fringe benefits; to government, a measure of tax-paying capacity and the basis of legislative action; to customers, a hint to demand for better quality and price cuts; to an enterprise, less cumbersome source of finance for growth and existence and finally to the country, profits are an index of economic progress. Profitability ratios are calculated to measure the overall efficiency of the business." Generally, profitability ratios are calculated either in relation to sales or in relation to investment. To measure the profitability of a firm, the following ratios can be calculated:



A) Profitability Ratios in Relation to Sales

i) Gross Profit Ratio

Meaning

This ratio measures the relationship between gross profit and net sales.

Objective

Gross profit ratio is calculated to know:

1. Whether the business is in a position to meet operating expenses or not, and
2. How much the share holders can get after meeting such expenses?

Components

There are two components of this ratio which are as under:

1. Gross profit
2. Net Sales

Cost of Goods Sold is calculated as under:

A: Opening Stock	xxx
B: Add: Net Purchases	xxx
C: Add: Direct Expenses (for example carriage inward)	xxx
D: Less: Closing Stock	xxx
Cost of Goods Sold (A + B + C – D)	xxx

Computation

This ratio is computed by dividing the gross profit by the net sales. It is expressed as percentage. In the form of a formula, this ratio may be expressed as under:

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

Gross Profit = Net Sales - Cost of Good Sold

Net Sales = Gross Sales - Sales Return

Gross profit is higher because of the following factors:

1. When sale price is higher.
2. Cost of sales remains constant.
3. If there is an increase in the volume of sales.
4. If closing stock is valued at a higher price.

Interpretation

This ratio indicates:

- (a) An average gross margin earned on a sales of ` 100,
- (b) The limit beyond which the fall in sales prices will definitely result in losses, and,
- (c) What portion of sales is left to cover operating expenses, (other than the cost of goods sold) and non-operating expenses (for example, interest on borrowed funds), to pay dividend and to create reserves. Higher the ratio, the more efficient the production and/or purchase management.

ii) Net Profit Ratio**Meaning**

This ratio measures the relationship between net profit and net sales.

Objective

The main objective of computing this ratio is to determine the overall profitability due to various factors such as operational efficiency, trading on equity, etc.

Components

There are two components of this ratio which are as under:

1. Net Profit
2. Net Sales

Computation

This ratio is computed by dividing the net profit by the net sales. It is expressed as a percentage. In the form of a formula, this ratio may be expressed as under:

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

Note : The figure of net profit may be taken either before tax or after tax.

Interpretation

This ratio indicates,

- (a) An average net margin earned on a sale of ` 100
- (b) What portion of sales is left to pay dividend and to create reserves, and
- (c) Firm's capacity to withstand adverse economic conditions when selling price is declining, cost of production is rising and the demand for the product is falling. Higher the ratio, greater is the capacity of the firm to withstand adverse economic conditions and vice versa.

iii) Operating Ratio**Meaning**

This ratio measures the relationship between operation cost and net sales.

Objective

The main objective of computing this ratio is to determine the operational efficiency with which production and/or purchases and selling operations are carried on.

Components

There are two components of this ratio which are as under:

1. Operating cost which comprises:
 - i) Cost of goods sold, and
 - ii) Other operation expenses.

For example, administrative expenses, selling and distribution expenses, interest on short-term loans, discount allowed and bad debts.

2. Net sales = Gross Sales - Sales Returns.

Computation

This ratio is computed by dividing the operating cost by the net sales. This ratio is expressed as a percentage. In the form of a formula, this ratio may be expressed as under:

$$\text{Operating Ratio} = \frac{\text{Operating Cost}}{\text{Net Sales}} \times 100$$

$$\text{Operating Cost} = \text{Cost of Good Sold} + \text{Operating Expenses}$$

$$= \frac{\text{Cost of Good Sold} + \text{Operating Expenses}}{\text{Net Sales}} \times 100$$

Interpretation

This ratio indicates an average operating cost incurred on a sale of goods worth ` 100. Lower the ratio, greater is the operating profit to cover the non-operating expenses, to pay dividend and to create reserves and vice versa.

iv) Operating Profit Ratio**Meaning**

This ratio measures the relationship between operating profits and net sales.

Objective

The main objective of computing this ratio is to determine the operational efficiency of the management. Components: There are two components of this ratio which are as under:

- 1. Operating Profit:** It is the excess of gross profit over other operating expenses. (For example, office and administrative expenses, selling and distribution expenses, discount, bad debts, interest on short-term debts).
- 2. Net Sales:** It means gross sales (both cash and credit minus sales returns).

Computation

This ratio is computed by dividing the operating profit by the net sales. It is expressed as a percentage. In the form of a formula, this ratio may be expressed as under:

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

$$\text{Operating Profit} = \text{Net Sales} - \text{Operating Cost}$$

(or)

$$= \text{Net Sales} - (\text{Cost of Goods Sold} + \text{Administrative and Office Expenses} + \text{Selling and Distributive Expenses})$$

$$\text{Net Sales} = \text{Gross Sales} - \text{Sales Return}$$

Alternatively**Operating Profit can also be calculated as**

$$\text{Operating Profit} = \text{Net Profit} + \text{Non-operating Expenses} - \text{Non-operating income.}$$

This ratio can also be calculated as:

$$\text{Operating Profit Ratio} = 100 - \text{Operating Ratio.}$$

Interpretation

This ratio indicates:

- i) An average operating margin earned on a sale of ` 100, and
- ii) What portion of sales is left to cover non-operating expenses, to pay dividend and to create reserves.

v) Expenses Ratio**Meaning**

Expenses ratios indicate the relationship of various expenses to net sales.

Objective

The objective of computing this ratio is to provide information about increase or decrease in expenses. Lower expense ratio is considered better for the business.

Computation

This can be calculated by using the following formula:

$$\text{Expense Ratio} = \frac{\text{Amount of Expenses}}{\text{Net Sales}} \times 100$$

One can also calculate separate expense ratios, such as ratio of administrative expenses to net sales, ratio of selling and distribution expenses to sales, financial expenses to sales etc. The above ratios can be calculated as below:

$$\text{For Administrative Expenses to Net Sales Ratio} = \frac{\text{Administrative and Office Expenses}}{\text{Net Sales}} \times 100$$

$$\text{For Selling \& Distribution Expenses to Net Sales Ratio} = \frac{\text{Selling and Distribution Expenses}}{\text{Net Sales}} \times 100$$

$$\text{For Financial Expenses to Net Sales Ratio} = \frac{\text{Financial Expenses and Interest}}{\text{Net Sales}} \times 100$$

Interpretation

The expense ratio indicates about efficiency of the business.

B) Profitability Ratio in Relation to Investment**i) Return on Total Assets****Meaning**

This ratio measures a relationship between net profit before interest and tax, and total assets.

Objective

The objective of computing this ratio is to find out how efficiently the total assets have been used by the management.

Components

There are two components of this ratio which are as under:

1. Net Profit before interest and tax.
2. Total assets (excluding fictitious assets,

For example, preliminary expenses.

Computation

This ratio is computed by dividing the net profit before interest and tax by total assets. This ratio is expressed as a percentage. In the form of a formula, this ratio may be expressed as under:

$$\text{Return on Total Assets} = \frac{\text{Net Profit before Interest and Tax}}{\text{Total Assets}} \times 100$$

Interpretation

This ratio indicates the firm's ability of generating profit per rupee of total assets. Higher the ratio, the more efficient the management and utilization of total assets.

ii) Return on Capital Employed/Return on Investment

Meaning: This ratio measures a relationship between net profit before interest and tax and capital employed.

Objective

The objective of computing this ratio is to find out how efficiently the long-term funds supplied by the creditors and shareholders have been used.

Components

There are two components of this ratio which are as under:

1. Net profit before interest and tax.
2. Capital employed which refers to long-term funds supplied by the long-term creditors and shareholders. It comprises the long-term debt and shareholders' funds.

Computation

This ratio is computed by dividing the net profit before interest and tax by capital employed. It is expressed as a percentage. In the form of formula, this ratio may be expressed as under:

$$\text{Return on Capital Employed} = \frac{\text{Net Profit before Interest and Tax}}{\text{Capital Employed}} \times 100$$

Note: Generally return on capital employed is taken as return on investments.

The term 'capital employed' refers to the total of investments made in a business and can be defined in a number of ways. The three most widely used definitions of this term are:

- i) Gross Capital Employed:** The term 'gross capital employed' usually comprises the total assets, fixed as well as current assets used in a business.

$$\text{Gross Capital Employed} = \text{Fixed Assets} + \text{Current Assets}$$

- ii) Net Capital Employed:** The term 'net capital employed' comprises the total assets used in a business less its current liabilities.

$$\text{Net Capital Employed} = \text{Total Assets} - \text{Current Liabilities}$$

- iii) Proprietors' Net Capital Employed:** Proprietors' net capital employed means shareholders' funds or investments in the business. This term is the same as return on shareholders' investment.

$$\text{Proprietors' Net Capital Employed} = \text{Fixed Assets} + \text{Current Assets} - \text{Outside Liabilities} \\ (\text{both long-term and short-term})$$

Interpretation

This ratio indicates the firm's ability of generating profit per rupee of capital employed. Higher the ratio, the more efficient the management and utilization of capital employed.

iii) Return on Equity or Return on Equity Shareholders' Funds**Meaning**

This ratio measures a relationship between net profit after interest, tax, and preference dividend, and equity shareholders' funds.

Objective

The objective of computing this ratio is to find out how efficiently the funds supplied by the equity shareholders have been used.

Components

There are two components of this ratio, which are as under:

1. Net profit after interest, tax and preference dividend (including participating dividend, if any, due to participating preference shareholders).
2. Equity shareholders' funds

Computation

This ratio is computed by dividing the net profit after interest, tax and preference dividend by shareholders' funds. It is expressed as a percentage. In the form of a formula, this ratio may be expressed as under:

$$\text{Return on Equity Shareholder's Funds} = \frac{\text{Net Profit after interest, tax and preference dividend}}{\text{Equity Shareholder's Funds}} \times 100$$

$$\text{Equity Shareholder Fund} = \text{Equity Share Capital} + \text{Preference Share Capital} + \text{Reserve and Surplus} - \text{Fictitious Assets (if any)}$$

Interpretation

This ratio indicates the firm's ability of generating profit per rupee of equity shareholders' funds. Higher the ratio, the more efficient the management and utilization of equity shareholders' funds.)

iv) Earning Per Share (EPS)**Meaning**

This ratio measures the earnings available to an equity shareholder on a per share basis.

Objective

The objective of computing this ratio is to measure the profitability of the firm on per equity share basis.

Components

There are two components of this ratio which are as under:

- 1) Net profit after interest, tax and preference dividend;
- 2) Number of equity shares

Computation

This ratio is computed by dividing the net profit after interest, tax and preference dividend by the number of equity shares. It is expressed as an absolute figure. In the form of a formula, this ratio may be expressed as under:

$$\text{Earning Per Share} = \frac{\text{Net Profit after interest, tax and preference dividend}}{\text{Number of Equity Shares}} \times 100$$

Interpretation

In general, higher the figure, better it is and vice versa. While interpreting this ratio, it must be seen whether there is any increase in equity shareholders' funds as a result of retained earnings without any change in numbers of outstanding shares.

For example, in the case of a company which, is following a practice of ploughing.

v) Capitalization Ratio

Meaning

This ratio measures the relationship between market price and earnings per share.

Computation

This ratio is calculated as given below:

$$\text{Capitalization Ratio} = \frac{\text{Earnings per share}}{\text{Market price per share}} \times 100$$

If market price is taken along with dividend received, this is known as **Dividend Yield Ratio**.

Only change is that in place of earnings per share, dividend per share is written. In a formula, it is:

$$\text{Dividend Yield Ratio} = \frac{\text{Dividend per share}}{\text{Market price per share}} \times 100.$$

vi) Price Earning Ratio or P/E Ratio (Earning Yield Ratio)

Meaning

This ratio measures the relationship between market price per equity share and earnings per share.

Objective

The objective of computing this ratio is to make an estimate of appreciation in the value of a share of a company and is widely used by investors to decide whether or not to buy shares in a particular company.

Computation

The ratio is calculated as:

$$\text{Price earnings ratio} = \frac{\text{Market price per equity share}}{\text{Earnings per share}}$$

$$\text{Earning Yield Ratio} = \frac{\text{Earnings per share}}{\text{Market price per share}} \times 100$$

Interpretation

Generally, higher the price-earning ratio, the better it is. If the P/E ratio falls, the management should look into the causes that have resulted into the fall of this ratio.

3.3.4 Leverage and structural ratios

Q16. Explain different types of leverage ratios.

Ans :

(July-18)

These ratios provide an insight into the financial techniques used by a firm and focus, as a consequence, on the long term solvency position with regard to, periodic payment of interest during the period of loan, repayment of principal on maturity or in predetermined installments on due dates.

The following ratios serve the purpose of determining the solvency of the concern.

1. Structure Ratios
 - i) Debt-Equity Ratio.
 - ii) Funded Debt to Total Capitalization Ratio.
 - iii) Proprietary Ratio or Equity Ratio.
2. Coverage Ratios
 - i) Interest Coverage Ratio (or Time-interest Earned Ratio or Debt-Service Ratio).
 - ii) Cash to Debt Service Ratio.
 - iii) Dividend Coverage Ratio.
3. Capital Gearing Ratio

1. Structure Ratios

The capital structure ratio shows the percent of long term financing represented by long term debt.

i) Debt-Equity Ratio

Meaning

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

Objective

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

Components

There are two components of this ratio which are as under:

1. **Long-Term Debts:** Long- term debts mean long-term loans whether secured or unsecured (e.g., debentures, bonds, loans from financial institutions).
2. **Shareholders' Funds:** Shareholder's funds mean equity share capital plus preference share capital plus reserves and surplus minus fictitious assets (e.g., preliminary expenses)

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:

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

(or)

$$\text{Debt to Equity Ratio} = \frac{\text{External Equities}}{\text{Internal Equities}}$$

Interpretation

It indicates the margin of safety to long-term creditors. A low debt-equity 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.

ii) Funded Debt to Total Capitalization Ratio**Meaning**

This ratio establishes a link between the long-term funds raised from outsiders and total long-term funds available in the business.

Components

The two words used in this ratio are:

1. Funded debt = Debentures + Mortgage loans + Bonds + Other long-term loans.
2. Total Capitalization = Equity Share Capital + Preference Share Capital + Reserves and Surplus + Other Undistributed Reserves + Debentures + Mortgage Loans + Bonds + Other long-term loans.

Computation

Funded debt is that part of total capitalization which is financed by outsiders. This ratio can be calculated as under:

Funded Debt to Total Capitalization Ratio

$$= \frac{\text{Funded debt}}{\text{Total Capitalisation}}$$

Interpretation

Though there is no 'rule of thumb' but still the lesser the reliance on outsiders the better it will be. If this ratio is smaller, better it will be, upto 50% or 55% this ratio may be too tolerable and not beyond.

iii) Proprietary Ratio/Equity Ratio**Meaning**

This ratio measures a relationship between proprietors' funds and the total assets.

Objective

The objective of computing this ratio is to find out how the proprietors have financed the assets.

Components

There are two components of this ratio which are as under:

1. Proprietors' Funds (excluding fictitious assets like preliminary exp.)
2. Total Assets

Computation

This ratio is computed by dividing the proprietors' funds by total assets. The ratio can be calculated as under:

$$\text{Proprietary Ratio} = \frac{\text{Proprietors Funds}}{\text{Total Assets}}$$

Note: Proprietors' Funds mean the Share-holders' Funds.

2. Coverage Ratios

Coverage ratios tell us the debt servicing commitments and sourcing the funds to meet them. These ratios are used to test the adequacy of cash flows generated through earnings for the purposes of meeting debt and lease obligations.

i) Interest Coverage Ratio/ Debt-Service Ratio**Meaning**

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

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.

Components

There are two components of this ratio which are as under:

1. Net profits before interest and taxes;
2. Interest on long-term debts.

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:

Interest Coverage Ratio

$$= \frac{\text{Net Profit before Interest and Taxes}}{\text{Interest on Long – term debt}}$$

ii) Cash to Debt Service Ratio**Computation**

Cash to debt service ratio, also known as Debt Cash Flow Coverage Ratio, is an improvement over the interest coverage ratio and is calculated as follows:

Cash to Debt Service Ratio

or

Debt Cash Flow Coverage

$$= \frac{\text{Annual Cash Flow before interest and taxes}}{\text{Interest} + \frac{\text{Sinking Fund Appropriation on Debt}}{1 - \text{Tax Rate}}}$$

$$\text{or CFCD} = \frac{\text{CF}}{1 + \frac{\text{SFD}}{\text{I} - \text{T}}}$$

Where,

CF = Annual Cash Flow before Interest and Tax

I = Interest charges

SFD = Sinking Fund Appropriation on Debt

T = Rate of Tax

Interpretation

The logic of the ratio is that the interest payments are to be made out of cash inflow of the business and not from the profits and apart from interest, expenses sinking fund appropriations on debt (which are

generally made by various firms to enable itself to make repayment of the loans) should be considered to find out debt cash flow coverage as a measure of long-term solvency of a firm. Generally, higher the coverage better it is, as far as, long-term solvency of the firm is concerned.

iii) Dividend Coverage Ratio

Meaning

This ratio measures the ability of a firm to pay dividend on preference shares which carry a stated rate of return. The ratio is expressed in 'X number of times'.

Computation

$$\text{Dividend Coverage Ratio} = \text{EAT} / (\text{Preference Dividend})$$

Interpretation

This ratio indicates margin of safety available to the preference share holders. Higher the ratio, more desirable on the part of preference share holders.

iv) Capital Gearing Ratio

Meaning

The term 'capital gearing' is used to describe the relationship between equity share capital including reserves and surpluses to preference share capital and other fixed interest-bearing loans.

Computation

This ratio can be calculated as under:

$$\text{Capital Gearing Ratio} = \frac{\text{Equity Share Capital} + \text{Reserve and Surplus}}{\text{Preference Capital} + \text{Long term debt bearing fixed interest}}$$

Interpretation

If preference share capital and other fixed interest bearing loans exceed the equity share capital including reserves, the firm is said to be highly geared. The firm is said to be in low gear if preference share capital and other fixed interest-bearing loans are less than equity capital and reserves.

Note: Long term debts bearing fixed interest are raised through debt and long term loan.

PROBLEMS

1. From the following information, calculate liquidity ratios for the two companies and give your interpretation of the liquidity position of the companies as revealed by the ratios.

	(Rupees in Lakhs)	
	Company X	Company Y
Cash	360	280
Debtors	2,800	6,400
Inventory	4,000	12,000
Bills payable	600	2,000
Creditors	1,600	10,000
Accrued Expenses	200	250
Tax payable	1,200	1,000

Sol :

(i) **Current Ratio** = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

Current Assets	X	Y	Current Liabilities	X	Y
Cash	360	280	Bills payable	600	2,000
Debtors	2,800	6,400	Creditors	1,600	10,000
Inventory	4,000	12,000	Accured expenses	200	250
			Tax payable	1,200	1,000
	7,160	18,680		3,600	13,250

$$\text{Current Ratio for X Co} = \frac{7,160}{3,600} = 1.98:1$$

$$\text{Current Ratio for Y Co} = \frac{18,680}{13,250} = 1.41:1$$

(ii) **Quick Ratio** = $\frac{\text{Quick Assets}}{\text{Current Liabilities}}$

Quick Assets = Current Assets – [Stock and Prepaid expenses]

Quick ratio for x co = $7,160 - 4,000 = \text{Rs. } 3,160$

Quick ratio for y co = $18,680 - 12,000 = \text{Rs. } 6,680$

$$\text{Quick ratio for x co} = \frac{3,160}{3,600} = 0.877$$

$$\text{Quick ratio for y co} = \frac{6,680}{13,250} = 0.50$$

(iii) **Absolute liquidity ratio** = $\frac{\text{Absolute Liquid Assets}}{\text{Current Liabilities}}$

Absolute liquid assets = QA – [Debtors + B/R]

Absolute liquid asses for x co. = $3,160 - 2,800 = 360$

Absolute liquid assets for y co. = $6,680 - 6,400 = 280$

Absolute Liquidity Ratio

$$\text{x co} = \frac{360}{3,600} = 0.1$$

$$\text{y co} = \frac{280}{13,250} = 0.02$$

2. You are given Trading and Profit & Loss Account of Mahesh Company limited for the year ended 31st December 1992.

Dr. Trading and Profit & Loss Account Cr.

Particulars	Rs.	Particulars	Rs.
To Opening Stock	30,000	By Net Sales	1,10,000
To Purchases	60,000	By Closing Stock	20,000
To Wages	10,000		
To Gross Profit (c/d)	30,000		
	1,30,000		1,30,000
To Administrative Expenses	10,000	By Gross Profit (b/d)	30,000
To Selling & Distribution Expenses	5,000	By Sundry Receipt	5,000
To Net Profit	20,000		
	35,000		35,000

Calculate

1. Gross Profit Ratio
2. Net Profit Ratio
3. Operating Ratio
4. Operating Profit Ratio

Sol :

$$1. \text{ Gross Profit Ratio} = \frac{\text{Gross profit}}{\text{Net sales}} \times 100$$

$$\begin{aligned} \text{GP Ratio} &= \frac{30,000}{1,10,000} \times 100 \\ &= 27.27\% \end{aligned}$$

2. Net Profit Ratio

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

$$\text{NP Ratio} = \frac{20,000}{1,10,000} \times 100$$

$$\therefore \text{NP Ratio} = 18.18\%$$

3. Operating Ratio

$$\text{Operating Ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Net sales}} \times 100$$

$$\text{Cost of goods sold} = \text{Opening stock} + \text{Purchases} + \text{Direct expenses} - \text{Closing stock}$$

$$\begin{aligned}\text{COGS} &= 30,000 + 60,000 + 10,000 - 20,000 \\ &= 1,00,000 - 20,000 \\ \text{COGS} &= 80,000\end{aligned}$$

$$\text{Operating Ratio} = \frac{\text{COGS} + \text{Operating expenses}}{\text{Net sales}} \times 100$$

$$\text{Operating Ratio} = \frac{80,000 + 15,000}{1,10,000} \times 100$$

$$= \frac{95,000}{1,10,000} \times 100$$

$$\therefore \text{Operating Ratio} = 86.36\%$$

4. Operating Profit Ratio

$$\begin{aligned}100 - \text{Operating Ratio} \\ &= 100 - 86.36\end{aligned}$$

$$\text{Operating Profit Ratio} = 13.64\%.$$

3. From the following Trading and Profit & Loss A/c of Rim Zim Limited for the year ended 31st March 1993.

Calculate

(i) Gross Profit Ratio

(ii) Net Profit Ratio

(iii) Operating Ratio

(iv) Operating Profit Ratio.

Dr.		Cr.	
Particulars	Amount	Particulars	Amount
To Opening Stock	5,00,000	By Sales	
To Purchases	11,00,000	Cash 3,00,000	
To Wages	3,00,000	Credit 17,00,000	20,00,000
To Factory Overheads	2,00,000	By Closing Stock	6,00,000
To Gross Profit (c/d)	5,00,000		
	26,00,000		26,00,000
To Administration Expenses	75,000	By Gross Profit (b/d)	5,00,000
To Selling & Distribution Exp.	50,000	By Dividend on Investment	10,000
To Interest on Debentures	20,000	By Profit on Sale of Furniture	20,000
To Depreciation	60,000		
To Loss on Sale of Motorcar	5,000		
To Net Profit	3,20,000		
	5,30,000		5,30,000

Sol :

$$(i) \quad \text{Gross Profit Ratio} = \frac{\text{Gross profit}}{\text{Net sales}} \times 100$$

$$\text{Gross Profit Ratio} = \frac{5,00,000}{20,00,000} \times 100$$

$$\therefore \text{GP Ratio} = 25\%$$

(ii) Net Profit Ratio

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

$$= \frac{3,20,000}{20,00,000} \times 100$$

$$\therefore \text{NP Ratio} = 16\%$$

$$(iii) \quad \text{Operating Ratio} = \frac{\text{Cost of goods sold} + \text{Operating expenses}}{\text{Net sales}} \times 100$$

$$\begin{aligned} (i) \quad \text{Cost of goods sold} &= \text{Opening stock} + \text{Purchases} + \text{Direct expenses} - \text{Closing stock} \\ &= 5,00,000 + 11,00,000 + 3,00,000 + 2,00,000 - 6,00,000 \\ 21,00,000 - 6,00,000 &= 15,00,000 \end{aligned}$$

OR

$$\begin{aligned} (i) \quad \text{COGS} &= \text{Net Sales} - \text{Gross Profit} \\ &= 20,00,000 - 5,00,000 = 15,00,000 \end{aligned}$$

$$\begin{aligned} (ii) \quad \text{Operating Expenses} &= \text{Administrative Expenses} + \text{Selling and Distribution Expenses} \\ \text{Operating Expenses} &= 75,000 + 50,000 = 1,25,000 \end{aligned}$$

$$\text{Operating Ratio} = \frac{15,00,000 + 1,25,000}{20,00,000} \times 100$$

$$= \frac{16,25,000}{20,00,000} \times 100$$

$$\text{Operating Ratio} = 81.25\%$$

(iv) Operating Profit Ratio

$$= 100\% - \text{Operating Ratio}$$

$$= 100\% - 81.25\%$$

$$\therefore \text{Operating Profit Ratio} = 18.75\%$$

4. From the following details, prepare a summarized Balance Sheet as on 31-3-2018.

Particulars	`	Particulars	`
Networking Capital	1,20,000	Proprietary ratio	0.75
Reserves	80,000	Current ratio	2.5
Bank O.D	20,000	Quick ratio	1.5

Sol :

(Jan.-20)

Given that,

$$\text{Current Ratio} = 2.5$$

$$\text{Quick Ratio} = 1.5$$

$$\text{Proprietary Ratio} = 0.75$$

$$\text{Net Working Capital} = 1,20,000$$

$$\text{Reserves} = 80,000$$

$$\text{Bank OD} = 20,000$$

Calculation of Current Assets and Current Liabilities

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = 2.5$$

Let us assume Current Liabilities as x and Current Assets as 2.5x

Net Working Capital = Current Assets – Current Liabilities

$$1,20,000 = 2.5x - x$$

$$1.5x = 1,20,000$$

$$x = \frac{1,20,000}{1.5} = 80,000$$

Therefore,

$$\text{Current Liabilities} = ₹ 80,000$$

$$\text{Current Assets} = 2.5 \times 80,000$$

$$= ₹ 2,00,000$$

Calculation of Stock

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}} = 1.5$$

$$= \frac{\text{Current Assets} - \text{Stock}}{\text{Current Liabilities} - \text{Bank OD}} = 1.5$$

$$= \frac{2,00,000 - \text{Stock}}{80,000 - 20,000} = 1.5$$

$$2,00,000 - \text{Stock} = 1.5 \times 60,000$$

$$2,00,000 - \text{Stock} = 90,000$$

$$2,00,000 - 90,000 = \text{Stock}$$

$$1,10,000 = \text{Stock}$$

$$\text{Stock} = ₹ 1,10,000$$

Calculation of Proprietors Funds and Fixed Assets

$$\text{Proprietary Ratio} = 0.75 : 1$$

$$\text{Fixed Assets} : \text{Proprietors Funds} = 0.75 : 1$$

$$\text{Proprietors Funds} = x$$

$$\text{Fixed Assets} = 0.75x$$

$$\text{Proprietors Funds} + \text{Long Term Loans} + \text{Current Liabilities} = \text{Fixed Assets} + \text{Current Assets} + \text{Fictitious Assets}$$

$$x + 0 + 80,000 = 0.75x + 2,00,000 + 0$$

$$x - 0.75x = 2,00,000 - 80,000$$

$$0.25x = 1,20,000$$

$$x = \frac{1,20,000}{0.25} = 4,80,000$$

$$x = 4,80,000$$

Note: There are no long term loans and Fictitious Assets

$$\text{So, Proprietors Fund is ₹ 4,80,000}$$

$$\begin{aligned} \text{Fixed Assets} &= 4,80,000 \times 0.75 \\ &= ₹ 3,60,000 \end{aligned}$$

Calculation of Capital

$$\text{Proprietors Fund} = \text{Share Capital} + \text{Reserves}$$

$$4,80,000 = \text{Share Capital} + 80,000$$

$$\begin{aligned} \text{Share Capital} &= 4,80,000 - 80,000 \\ &= ₹ 4,00,000 \end{aligned}$$

Balance Sheet

Liabilities	Amount (₹)	Assets	Amount (₹)
Share Capital	4,00,000	Fixed Assets	3,60,000
Reserves	80,000	Current Assets	
		Stock	1,10,000
Current Liabilities	80,000	Others (2,00,000 – 1,10,000)	90,000
	5,60,000		5,60,000

5 Following are assets and liabilities of Krishna Co. Ltd. as on 31st March, 2016.

Liabilities	(`)	Assets	(`)
Equity capital	5,00,000	Land and buildings	3,50,000
5% debentures	2,00,000	Machinery	2,50,000
Bank loan	1,50,000	Cash in hand	25,000
Creditors	75,000	Cash at bank	55,000
Bills payable	50,000	Debtors	85,000
Outstanding expenses	5,000	Bills receivable	1,05,000
		Stock	1,00,000
		Prepaid expenses	10,000
	9,80,000		9,80,000

Calculate :

- (i) Current ratio
- (ii) Quick ratio
- (iii) Debt to equity ratio
- (iv) Proprietary ratio
- (v) Assets turnover ratio if sales are ` 19,60,000.

Sol :

(Aug.-18)

(i) Calculation of Current Ratio

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

Current Assets = Cash in Hand + Cash at Bank + Debtors + Bills Receivable + Stock + Prepaid Expenses.

Current Liabilities = Creditors + Bills Payable + Outstanding Expenses

$$\therefore \text{Current Assets} = 25,000 + 55,000 + 85,000 + 1,05,000 + 1,00,000 + 10,000 = \text{` } 3,80,000$$

$$\therefore \text{Current Liabilities} = 75,000 + 50,000 + 5,000 = \text{` } 1,30,000$$

$$\text{Current Ratio} = \frac{3,80,000}{1,30,000} = 2.92$$

(ii) Calculation of Quick Ratio

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

Quick Assets = Current Assets – (Stock + Prepaid Expenses)

$$\therefore \text{Quick Assets} = 3,80,000 - (1,00,000 + 10,000) \\ = \text{` } 2,70,000$$

$$\therefore \text{Quick Ratio} = \frac{2,70,000}{1,30,000} \Rightarrow 2.08$$

(iii) Calculation of Debt Equity Ratio

$$\begin{aligned}
 \text{Debt Equity Ratio} &= \frac{\text{Outsiders Funds}}{\text{Shareholders Funds}} \\
 &= \frac{\text{Debentures} + \text{Bank Loan} + \text{Creditors}}{\text{Equity Share Capital}} \\
 &= \frac{2,00,000 + 1,50,000 + 75,000}{5,00,000} \\
 &= \frac{4,25,000}{5,00,000}
 \end{aligned}$$

$$\therefore \text{Debt Equity Ratio} = 0.85$$

(iv) Calculation of Proprietary Ratio

$$\text{Proprietary Ratio} = \frac{\text{Total Assets}}{\text{Proprietary Funds}}$$

Proprietary funds is also known as shareholders funds.

$$= \frac{9,80,000}{5,00,000}$$

$$\therefore \text{Proprietary Ratio} = 1.96$$

(v) Calculation of Assets Turnover Ratio if Sales are ₹ 19,60,000

$$\begin{aligned}
 \text{Assets Turnover Ratio} &= \frac{\text{Sales}}{\text{Total Assets}} \\
 &= \frac{19,60,000}{9,80,000}
 \end{aligned}$$

$$\therefore \text{Assets Turnover Ratio} = 2$$

6. Mr. Krishna & Co. presents the following information for the year ended 31 December.

Credit Sales	Rs. 150000	Cash sales	Rs. 250000
Returns Inwards	Rs. 25000	Opening stock	Rs. 28000
Closing Stock	Rs. 35000		

Find out inventory turnover ratio when gross profit is 20% on sales. Also calculate inventory holding period.

Sol :

(June-18)

Given that,

$$\text{Credit Sales} = ₹ 1,50,000$$

$$\text{Cash Sales} = ₹ 2,50,000$$

Returns Inwards = ₹ 25,000

Opening Stock = ₹ 28,000

Closing Stock = ₹ 35,000

Calculation of Inventory Turnover Ratio

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

Cost of Goods Sold = Net Sales – Gross Profit

Net Sales = Credit Sales + Cash Sales – Returns Inwards

$$= ₹ 1,50,000 + ₹ 2,50,000 - ₹ 25,000 = ₹ 3,75,000$$

$$\therefore \text{Net Sales} = ₹ 3,75,000$$

Cost of Goods Sold = ₹ 3,75,000 – 20% of Sales

$$\text{Gross Profit} = ₹ 3,75,000 \times \frac{20}{100} = ₹ 75,000$$

$$= ₹ 3,75,000 - ₹ 75,000$$

$$\therefore \text{Cost of Goods Sold} = ₹ 3,00,000$$

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2}$$

$$= \frac{₹ 28,000 + ₹ 35,000}{2}$$

$$= \frac{₹ 63,000}{2}$$

$$= \frac{₹ 63,000}{2}$$

$$= ₹ 31,500$$

$$\therefore \text{Inventory Turnover Ratio} = \frac{₹ 3,00,000}{₹ 31,500}$$

$$= 9.52 \text{ times}$$

Calculation of Inventory Holding Period

$$\text{Inventory Holding Period} = \frac{365 \text{ days}}{\text{Inventory Turnover Ratio}}$$

$$= \frac{365 \text{ days}}{9.52 \text{ times}}$$

$$= 38.34 \text{ days.}$$

7. From the following details, prepare a statement of proprietary funds with as many details as possible.

A Stock Velocity = 6

B Capital turnover = 2

C Fixed assets turnover ratio = 4

D Gross profit turnover ratio = 20

E Debtors velocity = 2 months

F Creditors velocity = 73 days

The gross profit was ₹ 60,000, Reserves and surplus amounted to ₹ 20,000, closing stock was ₹ 5,000 in excess of opening stock.

Sol :

(Jan.-18)

Balance Sheet

Liabilities	Amount (₹)	Assets	Amount (₹)
Capital	1,30,000	Fixed assets	75,000
Reserves & Surplus	20,000	Debtors	50,000
Creditors	49,000	Closing stock	42,500
		Cash	31,500
		(Balancing figure)	
	1,99,000		1,99,000

Working Notes

(a) Calculation of Sales

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

Since gross profit ratio is 20% and gross profit is 60,000.

$$\text{Sales} = \frac{\text{Gross Profit}}{\text{Gross Profit Ratio}}$$

$$\text{Sales} = \frac{60,000}{20\%}$$

$$\begin{aligned} \text{Sales} &= ₹ 60,000 \times \frac{100}{20} \\ &= ₹ 3,00,000 \end{aligned}$$

(b) Calculation of Cost of Goods Sold

$$\begin{aligned} \text{Cost of Goods Sold} &= \text{Sales} - \text{Gross Profit} \\ &= ₹ 3,00,000 - ₹ 60,000 \\ &= ₹ 2,40,000 \end{aligned}$$

(c) Calculation of Stocks

$$\text{Stock velocity} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}} \Rightarrow 6 = \frac{\text{₹ } 2,40,000}{\text{Average Stock}}$$

$$\text{Average Stock} = \frac{2,40,000}{6} = \text{₹ } 40,000$$

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing stock}}{2}$$

$$40,000 = \frac{\text{Opening stock} + (\text{Opening stock} + 5000)}{2}$$

$$\therefore \text{Closing Stock} = \text{Opening Stock} + 5000$$

$$40,000 \times 2 = 2 \text{ Opening Stock} + 5000$$

$$80,000 - 5,000 = 2 \text{ Opening Stock}$$

$$75,000 = 2 \text{ Opening Stock}$$

$$\text{Opening Stock} = \frac{75,000}{2} = 37,500$$

$$\begin{aligned} \text{Closing Stock} &= \text{Opening Stock} + 5,000 \\ &= 37,500 + 5,000 \\ &= 42,500 \end{aligned}$$

(d) Calculation of Debtors

Debt collection period = 2 months

$$\text{Debtor Velocity} = \frac{\text{Total Debtors}}{\text{Credit Sales}} \times \text{Number of months}$$

$$2 = \frac{\text{Total Debtors}}{\text{Credit Sales}} \times 12$$

$$\text{Total Debtors} \times 12 = 3,00,000 \times 2$$

$$\text{Total Debtors} = \frac{3,00,000 \times 2}{12} = \text{₹ } 60,000$$

(e) Calculation of Creditors

$$\begin{aligned} \text{Purchases} &= \text{Cost of Goods Sold} + \text{Closing Stock} - \text{Opening Stock} \\ &= \text{₹ } 2,40,000 + \text{₹ } 45,500 - \text{₹ } 37,500 \end{aligned}$$

$$\text{Creditors Velocity} = \frac{\text{Total Creditors}}{\text{Credit Purchases}} \times \text{Number of working days}$$

$$73 = \frac{\text{Total Creditors}}{2,45,000} \times 365$$

$$365 \times \text{Total Creditors} = \frac{2,45,000 \times 73}{365}$$

$$\text{Total Creditors} = ₹ 49,000$$

(f) Calculation of Fixed Assets

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

$$4 = \frac{3,00,000}{\text{Fixed Assets}}$$

$$4 \times \text{Fixed Assets} = 3,00,000$$

$$\text{Fixed Assets} = \frac{3,00,000}{4}$$

$$= ₹ 75,000$$

(g) Calculation of Capital

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

$$2 = \frac{3,00,000}{\text{Capital}}$$

$$= ₹ 1,50,000$$

Capital Includes Reserves & Surplus of ₹ 20,000.

$$\therefore 1,50,000 - 20,000 = ₹ 1,30,000.$$

8. From the following information, you are required to prepare Balance Sheet.

(a) Current ratio	1.75
(b) Liquid ratio	1.25
(c) Stock turnover ratio (cost of sales/closing stock)	9
(d) Gross profit ratio	25%
(e) Debt collection period	1.5 months
(f) Reserves and surplus to capital	0.2
(g) Fixed asset turnover ratio (cost of sales)	1.2
(h) Capital gearing ratio (Long term debt to share capital)	0.6
(i) Fixed asset to net worth	1.25
(j) Sales	₹ 12,000

Sol :

(Nov.-20)

(i) Calculation of Cost of Goods Sold

$$\text{Cost of goods sold} = \text{Sales} - \text{Gross Profit}$$

Gross Profit is 25% of sale

$$\text{Gross profit} = 1200 \times = 3000$$

$$\therefore \text{Cost of goods sold} = 12000 - 3000 \\ = \text{` } 9000.$$

(ii) Calculation of Closing Stock

Turnover Ratio = 9 (Given)

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of goods sold}}{\text{Closing stock}}$$

$$9 = \frac{9000}{\text{Closing stock}}$$

$$\text{Closing stock} = \frac{9000}{9} = 1000$$

$$\therefore \text{Closing stock} = \text{` } 1000.$$

(iii) Calculation of Current Assets

Current Ratio : 1.75

Less: Liquid Ratio: 1.25

Stock : 0.50

Stock = ` 1000

0.50 — ` 1000

1.75 — ?

$$\frac{1000 \times 1.75}{0.50} = \frac{1750}{0.50}$$

$$\therefore \text{Current Assets} = \text{` } 3500.$$

(iv) Calculation of Current Liabilities

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

$$1.75 = \frac{3500}{\text{Current Liabilities}}$$

$$1.75 \times \text{Current liabilities} = 3500$$

$$\text{Current liabilities} = \frac{350}{1.75}$$

$$\therefore \text{Current liabilities} = ₹ 2000.$$

(v) Calculation of Liquid Assets

$$\begin{aligned}\text{Liquid Assets} &= \text{Current Assets} - \text{Stock} \\ &= 3500 - 1000 \\ &= ₹ 2500\end{aligned}$$

(vi) Calculation of Debtors

$$\text{Debt Collection period} = 1.5 \text{ months (Given)}$$

$$\text{Debt Collection period} = \frac{\text{Debtors}}{\text{Sales}} \times 12$$

$$1.5 \times 12000 = \text{Debtors} \times 12$$

$$18000 = \text{Debtors} \times 12$$

$$\text{Debtors} = \frac{18000}{12}$$

$$\therefore \text{Debtors} = ₹ 1500.$$

(vii) Calculation of Fixed Assets

$$\text{Turnover to Fixed Assets Ratio} = 1.2 \text{ (Given)}$$

$$\text{Fixed assets turnover ratio} = \frac{\text{Cost of Sales}}{\text{Fixed Assets}}$$

$$1.2 = \frac{9000}{\text{Fixed Assets}}$$

$$1.2 \times \text{Fixed Assets} = 9000$$

$$\text{Fixed Assets} = \frac{9000}{1.2}$$

$$\therefore \text{Fixed Assets} = ₹ 7500.$$

(viii) Calculation of Network

$$\text{Fixed Assets to Network} = 1.25 \text{ (Given)}$$

$$\text{Fixed Assets to Network} = \frac{\text{Fixed Assets}}{\text{Net worth}}$$

$$1.25 \times \text{Network} = 7500$$

$$\text{Network} = \frac{7500}{1.25}$$

$$\therefore \text{Network} = ₹ 6000.$$

(ix) Calculation of Resources and Surplus and Share

Reserves and Surplus to Capital = 0.20 (Given)

Lets share capital is equal to ' 1'

Reserves + Share Capital = Networth

$$0.20 + 1.00 = 1.20$$

$$? + ? = 6000$$

$$1.20 - 6000 \quad 1.20 - 6000$$

$$0.20 - ? \quad 1.00 - ?$$

$$\text{` } 1000 + \text{` } 5000 = \text{` } 6000$$

\therefore Reserves and surplus = ` 1000 and share capital = ` 5000

(x) Calculation of Long Term Debt

Capital Gearing Ratio = 0.60 (Given)

$$\text{Capital Gearing Ratio} = \frac{\text{Long Term Debt}}{\text{Share Capital}}$$

$$\text{Long Term Debt} = 5000 \times 0.60$$

\therefore Long Term Debt = ` 3000

(xi) Calculation of Cash and Bank Balances

Cash and bank balances = Current Assets – (Debtors + Stock)

$$= 3500 - (1500 + 1000)$$

$$= 3500 - 2500$$

$$= \text{` } 1000$$

Balance Sheet as on

Liabilities	Amount (`)	Assets	Amount (`)
Share capital	5000	Fixed Assets	7500
Long term debt	3000	Current Assets:	
Reserves	1000	Debtors	1500
Current liabilities	2000	Closing Stock	1000
Cash and Bank Balances			1000
	11000		11000

9. From the data given below compute :

- (i) Working capital
- (ii) Net capital employed
- (iii) Current Ratio
- (iv) Acid test ratio
- (v) Debt-equity ratio

A.C Ltd. Balance Sheet as at 31-12-2014

Equities	Rs.	Assets	Rs.
Equity Share Capital	25,000	Fixed Assets	30,000
Pref. Share Capital	5,000	Stores	2,000
Reserve & Surplus	4,000	Stock in trade	4,000
Debentures	8,000	S/Drs	1,000
Bank Loan	4,000	Cash in hand	500
Sundry Creditors	1,000	Balance with	
		Scheduled Bank	2,500
Proposed dividends	1,000	Preliminary expenses	8,000
Provision for taxation	2,000	Brokerage on subscription	2,000
Contingent liabilities (2,000)		of shares	
	50,000		50,000

Comment on financial health of the company.

Sol :

(Feb.-17)

(i) **Working Capital** = Current Assets – Current Liabilities

$$= (2,000 + 4,000 + 1,000 + 500 + 2,500) - (1,000 + 1,000 + 2,000)$$

$$= 10,000 - 4,000$$

$$\text{Working Capital} = 6,000$$

(ii) **Capital Employed** = Equity capital + Preference capital + Reserves

+ Long term liabilities – Preliminary Expenses

$$= (25,000 + 5,000 + 4,000 + 8,000 + 4,000) - (8,000 + 2,000)$$

$$= 46,000 - 10,000$$

$$\text{Capital Employed} = 36,000$$

$$(iii) \text{ Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{10,000}{4,000}$$

$$\text{Current Ratio} = 2.5$$

$$(iv) \text{ Acid test ratio / Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}}$$

$$= \frac{10,000 - 4,000}{4,000}$$

$$= \frac{6,000}{4,000}$$

$$\text{Quick Ratio} = 1.5$$

$$\begin{aligned} \text{(v) Debt equity ratio} &= \frac{\text{Long term liabilities}}{\text{Shareholders funds}} \\ &= \frac{8,000 + 4,000}{25,000 + 5,000 + 4,000} \\ &= \frac{12,000}{34,000} \end{aligned}$$

$$\text{Debt equity ratio} = 0.35.$$

10. From the following details, calculate:

- (i) Current ratio
- (ii) Quick ratio
- (iii) Debt-equity ratio
- (iv) Fixed assets ratio
- (v) Net profit ratio.

Balance Sheet

Equity capital	100000	Land	100000
Preference capital	50000	Buildings	80000
Debentures	50000	Stock	25000
Net profit	20000	Debtors	55000
Creditors	30000	B/R	3000
Bills payable	15000	Cash	2000
	265000		265000

Ans :

(Aug.-21)

(i) Calculation of Current Ratio

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

$$\begin{aligned} \text{Current Assets} &= \text{Stock} + \text{Debtors} + \text{Bills Receivable} + \text{Cash} \\ &= 25,000 + 55,000 + 3,000 + 2,000 \\ &= 85,000 \end{aligned}$$

$$\text{Current Liabilities} = \text{Creditors} + \text{Bills Payable}$$

$$= 30,000 + 15,000$$

$$= 45,000$$

$$\text{Current Ratio} = \frac{85,000}{45,000} = 1.89$$

(ii) Calculation of Quick Ratio

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

$$\text{Quick Assets} = \text{Current Assets} - \text{Stock}$$

$$= 85,000 - 25,000$$

$$= 60,000$$

$$\text{Quick Ratio} = \frac{60,000}{45,000} = 1.33$$

(iii) Calculation of Debt-Equity Ratio

$$\text{Debt-Equity Ratio} = \frac{\text{Longterm debts}}{\text{Shareholder's Funds}}$$

$$\text{Long term funds} = \text{Debentures} + \text{Creditors} + \text{Bills Payable}$$

$$= 50,000 + 30,000 + 15,000$$

$$= 95,000$$

$$\text{Shareholders Funds} = \text{Equity Capital} + \text{Preference Capital}$$

$$= 1,00,000 + 50,000$$

$$= 1,50,000$$

$$\text{Debt-Equity Ratio} = \frac{95,000}{1,50,000} = 0.63$$

(iv) Calculation of Fixed Assets Ratio

$$\text{Fixed Assets Ratio} = \frac{\text{Fixed Assets}}{\text{Capital Employed}}$$

$$\text{Fixed Assets} = \text{Land} + \text{Building}$$

$$= 1,00,000 + 80,000$$

$$= 1,80,000$$

$$\text{Capital Employed} = \text{Shareholder's Funds}$$

$$= 1,50,000$$

$$\begin{aligned}\text{Fixed Assets Ratio} &= \frac{1,80,000}{1,50,000} \\ &= 1.2\end{aligned}$$

(v) Calculation of Net Profit Ratio

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Sales}} \times 100$$

[Note : As sales are not given in problem, it is not possible to calculate net profit ratio]

3.4 COMMON SIZE STATEMENT ANALYSIS

Q17. What do you mean by Common Size Statement analysis? Explain the purpose of common size statement.

Ans :

(Jan.-19, Jan.-18)

Meanings

Common Size Statements are of immense use while comparing business enterprises which differ substantially in size as it provides an insight into the structure of financial statements. Common Size Statements help in better understanding of the important changes which have occurred in the enterprise over a period of time.

Common Size Statements are those in which individual figures are converted into percentages to some common base. Percentage of each individual item shows its relation to its respective total i.e. Total Assets or Total Liabilities or Total Net Sales.

Common Size Statement analysis is called as 'Vertical Analysis' since each accounting variable is analysed vertically.

Common Size Statements may be prepared for the Balance Sheets as well as for the Income statements. Normally, Total Assets or Total Liabilities is taken as a base for the Balance Sheet items and the figure of net sales is taken as the base for the income statement items.

Purpose

Common Size Statements are of great value in forming the opinion regarding the progress of business firm. Following are the main purposes of preparing common size statements:

1. Presenting the change in various items in relation to total assets or total liabilities or net sales

One of the major drawback of comparative financial statements is that they do not present the change in various items in relation to total assets or total liabilities or net sales. This drawback is removed through the preparation of Common size statements.

2. Establishing a Relationship

Over a period of time, a relationship has been established between various items of the Profit and Loss Account i.e. Income Statement to sales and various items of Balance Sheet to total assets or total liabilities. Meaningful conclusions can be drawn by studying the changes in relationship.

3. Providing a Common Base for Comparison

Common size statements provide a common base for comparison. Financial Statements of different periods and different firms can be converted into uniform common size format irrespective of the size of individual items. Thus, the Common size statements facilitate the comparison of profitability and financial position of two or more business over a period of time.

Q18. Explain various types of Common Size Statements Analysis.

Ans :

(Jan.-18)

1. Common-size Balance Sheet

A Common Size Balance Sheet is a statement in which total of assets or liabilities is assumed to be equal to 100 and all the figures are expressed as percentage of the total. In other words, each asset is expressed as percentage to total assets and each liability is expressed as percentage to total liabilities. That is why, it is also known as 'Percentage Balance Sheet'.

Common Size Balance Sheet facilitates the vertical analysis since each item of the Balance Sheet is analysed vertically.

Significance

A comparison of Common Size Balance Sheets for different periods helps to highlight the trends in different items. If it is prepared for different firms in an industry, it facilitates to judge the relative soundness and helps in understanding their financial strategy.

Objectives of Common Size Balance Sheet

1. To show the changes in individual items of Balance Sheet.
2. To determine the trend in different items of Assets and Liabilities.
3. To judge the relative financial position on the basis of Common Size Balance Sheets for different enterprises belonging to the same industry.
4. To assess the financial strategy adopted by different enterprises belonging to the same industry.

A format of a Common Size Balance Sheet :**Common Size Balance Sheet as at**

Particulars	Previous Year (Rs)	Current Year (Rs)	Previous Year (%)	Current Year (%)
Assets:				
Fixed Assets	—	—	—	—
Investments	—	—	—	—
Current Assets	—	—	—	—
Total Assets	—	—	100	100
Liabilities:				
Equity Share Capital	—	—	—	—
Pref. Share Capital	—	—	—	—
Reserves and Surplus (Less Misc. Exp.)	—	—	—	—
Secured Loans	—	—	—	—
Unsecured Loans	—	—	—	—
Current Liabilities	—	—	—	—
Provisions	—	—	—	—
Capital & Liabilities	—	—	100	100

Procedure

The Preparation of Common Size Balance Sheet consists of the following steps:

Step 1

Enter the items of Balance Sheet in first column.

Step 2

Enter the absolute amounts of different items of assets and liabilities of previous year's Balance Sheet in second column.

Step 3

Enter the absolute amounts of different items of assets and liabilities of current year's Balance Sheet in third column.

Step 4

Enter the percentage relation of different items of previous year's Balance Sheet to total assets/ liabilities of previous year which are taken as 100 in fourth column.

Step 5

Enter the percentage relation of different items of current year's Balance Sheet to total assets/ liabilities of current year which are taken as 100 in fifth column.

Preparation of Common Size Balance Sheet

In the case of Balance Sheet, the amount of total assets is taken as 100 and other items of assets side are converted as percentage to total assets. Similarly, the amount of total liabilities is taken as 100 and other items of liabilities side are converted as percentage to total liabilities. For example, if total assets are Rs. 10,00,000 and investments are Rs. 50,000. The percentage will be calculated as:

It means investments are 5% of the total assets. Similarly all other items of the Balance Sheet are converted into percentage form.

2. Common-size Income Statement

A format of a Common Size Income Statement is given below:

Common size Income Statement for the years 2001 and 2002

Particulars	Absolute Amount		Percentage of Net Sales	
	Previous Year Rs.	Current Year Rs.	Previous Year Rs.	Current Year Rs.
Net Sales	-	-	-	-
Less: Cost of Goods Sold				
Gross Profit				
Less: Operating Exp.	-	-	-	-
Office Expenses	-	-	-	-
Selling Expenses				
Operating Profit				

Add: Non-Operating Incomes	-	-	-	-
Less: Non-Operating Expenses	-	-	-	-
Profit before Tax				
Less: Tax paid				
Profit after Tax	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

PROBLEMS ON COMMON SIZE BALANCE SHEET

11. Prepare a common size financial statement based on the details provided.

Balance Sheet as at 31 March 2010

Liabilities	`	Assets	`
Sundry creditors	10,000	Cash	8,000
Outstanding expenses	20,000	Debtors	30,000
Loans	58,000	Prepaid expenses	60,000
		Stock	17,000
Capital	1,65,000	Other current assets	5,000
Reserves	22,000	Fixed assets	1,55,000
	2,75,000		2,75,000

Income Statement

Expenses	`	Income	`
To cost of goods sold	1,75,000	By net sales	3,15,000
To selling overheads	95,000	By other income	5,000
To administration and general expenses	22,000		
To Tax	8,000		
To loss on sale of investments	13,000		
To net income	7,000		
	3,20,000		3,20,000

Sol :

Common Size Balance Sheet as at 31 March 2010

No	Particulars			%	%
I	Sources of funds				
	Shareholder's funds				
	Capital	1,65,000		67.35	
				(W.N -1)	
	Reserves	22,000		8.98	
			1,87,000		76.33
	Loan funds		58,000		23.67
	Total funds available		2,45,000		100.00
II	Application of Funds				
	Fixed assets		1,55,000		63.26
III	Working Capital				
A)	Current Assets				
	Cash	8,000		3.26 (W.N-2)	
	Debtors	30,000		12.24	
	Other current assets	5,000		2.04	
	Stock	17,000		6.94	
	Prepaid expenses	60,000		24.49	
		1,20,000		48.97	
B)	Less : Current Liabilities				
	Creditors	10,000		4.08	
	Outstanding expenses	20,000		8.16	
		30,000		12.24	
	(A – B) W.N – (2)		90,000		36.74
	Total funds employed		2,45,000		100.00

Common Size Income Statement For the Year Ended 31 March 2010

No.	Particulars	₹	₹	%	%
1.	Net sales		3,15,000		100.00
2.	Less: cost of goods sold		(1,75,000)		(55.56)
3.	Gross profit (1 – 2)		1,40,000		44.44
4.	Less: Operating expenses				(WN - 3)
	Administration and general expenses	22,000		6.98	
	Selling overheads	95,000		30.16	
			(1,17,000)		37.14
5.	Operating income		23,000		7.30
	Add: Other income		5,000		1.60
6.	Net operating profit (3 – 4 + 5)		28,000		8.90
7.	Less: Non-operating expenses				
	loss on sale of investments		(13000)		(4.13)
8.	Net profit before tax (6 – 7)		15,000		4.77
9.	Less: Taxes		(8000)		(2.54)
10.	Net profit after tax (8 – 9)		(7,000)		2.23

Working Notes

1. Total funds available = 2,45,000 – 100%

$$\text{Capital} = \frac{1,65,000}{2,45,000} \times 100 = 67.35\%$$

2. Working capital = Current assets – Current liabilities

$$= 1,20,000 - 30,000$$

$$= 90,000$$

$$\text{Total funds employed} = 2,45,000 - 100\%$$

$$\text{Cash} = \frac{8,000}{2,45,000} \times 100$$

$$= 3.26\%$$

3. Net sales = 3,15,000 – 100%

$$\text{Gross profit} = \frac{1,40,000}{3,15,000} \times 100 = 44.44.$$

12. Following are the two balance sheets of X Ltd and Y Ltd as on 31-March-2009.

Particulars	X Ltd ₹	Y Ltd ₹
Assets:		
Cash	8,00,000	9,00,000
Sundry debtors	2,00,000	2,50,000
Stock	2,50,000	3,00,000
Prepaid expenses	1,00,000	1,25,000
Other current assets	50,000	75,000
Fixed assets (Net)	6,00,000	4,00,000
Total assets	20,00,000	20,50,000
Liabilities and Capital:		
Sundry creditors	3,75,000	5,25,000
Other current liabilities	4,00,000	5,05,000
Fixed liabilities	5,75,000	6,20,000
Capital	6,50,000	4,00,000
Total liabilities	20,00,000	20,50,000

From the above data, prepare a common size balance sheet and make comments.

Sol :

Common Size Balance Sheets

Particulars	X Ltd		Y Ltd	
	Amount ₹	Percentage of Total	Amount ₹	Percentage of Total
Current Assets		(Working Note-1)		
Cash	8,00,000	40.00	9,00,000	43.90
Sundry debtors	2,00,000	10.00	2,50,000	12.19
Stock	2,50,000	12.50	3,00,000	14.63
Prepaid expenses	1,00,000	5.00	1,25,000	6.10
Other current assets	50,000	2.50	75,000	3.66
Total current assets	14,00,000	70.00	16,50,000	80.48
Fixed Assets				
Fixed assets (Net)	6,00,000	30.00	4,00,000	19.51
Total assets	20,00,000	100.00	20,50,000	100.00
Current Liabilities				
Sundry creditors	3,75,000	18.75	5,25,000	25.61
Other current liabilities	4,00,000	20.00	5,05,000	24.63
Total current liabilities	7,75,000	38.75	10,30,000	50.24
Fixed liabilities	5,75,000	28.75	6,20,000	30.24
Capital	6,50,000	32.50	4,00,000	19.51
Total liabilities and capital	20,00,000	100.00	20,50,000	100.00

Working Notes

$$\text{Percentage of total} = \frac{\text{Amount of current assets}}{\text{Total amount of assets}} \times 100$$

$$\text{Cash} = \frac{8,00,000}{20,00,000} \times 100 = 40\%$$

Note

It is calculated similarly for all other items.

Comments

1. The financial structure of X Ltd is more safe when compare to Y Ltd because X Ltd is more dependent on shareholder's funds as it is nearly 43% of total investments.
2. The working capital position of both X Ltd and Y Ltd is good. The current ratio of both the firms is more than the standard ratio.
3. By evaluating different amounts of both the firms, it is clear that both have satisfactory financial position. In comparison X Ltd is better than Y Ltd.

13. The Balance Sheet of S & Co. and K & Co. are given as follows :**Balance Sheets as on 31-03-2014**

Particulars	S & Co. (₹)	K & Co. (₹)
I. Equity and Liabilities		
Shareholder's Funds		
Share Capital :		
Preference Share Capital	1,20,000	1,60,000
Equity Share Capital	1,50,000	4,00,000
Reserve and Surplus	14,000	18,000
Non-current Liabilities		
Long-term Loans	1,15,000	1,30,000
Current Liabilities		
Trade Payables :		
Bills Payable	2,000	
Sundry Creditors	12,000	4,000
Outstanding Expenses	15,000	6,000
Proposed Dividend	10,000	90,000
	4,38,000	8,08,000

II. Assets		
Non-Current Assets		
Tangible Assets :		
Land and Building	80,000	1,23,000
Plant and Machinery	3,34,000	6,00,000
Current Assets		
Temporary Investment	1,000	40,000
Inventories	10,000	25,000
Trade Receivables (Book Debts)	4,000	8,000
Prepaid Expenses	1,000	2,000
Cash and Cash Equivalents :		
Cash and Bank Balances	8,000	10,000
	4.38.000	8.08.000

Compare the financial position of two companies with the help of common size balance sheet.

Sol :

Common-Size Balance Sheet
as on 31-03-2014

Particulars	S & Co.		K & Co.	
	Amount 、	% 、	Amount 、	% 、
Fixed Assets				
Land and building	80,000	18.26	1,23,000	15.22
Plant and Machinery	3,34,000	76.26	6,00,000	74.62
Total Fixed Assets	4,14,000	94.52	7,23,000	89.48
Current Assets				
Temporary Investments	1,000	0.23	40,000	4.95
Inventories	10,000	2.28	25,000	3.08
Book Debts	4,000	0.91	8,000	0.99
Prepaid Expenses	1,000	0.23	2,000	0.25
Cash and Bank Balance	8,000	1.83	10,000	1.25
Total Current Assets	24,000	5.48	85,000	10.52
Total Assets	4,38,000	100.00	8,08,000	100.00

Share Capital and Reserves				
Preference Share Capital	1,20,000	27.39	1,60,000	19.80
Equity Share Capital	1,50,000	34.25	4,00,000	49.50
Reserves and Surpluses	14,000	3.19	18,000	2.23
Total Capital & Reserves	2,84,000	64.83	5,78,000	71.53
Long-term Loans	1,15,000	26.25	1,30,000	16.09
Current Liabilities				
Bills Payable	2,000	0.46	—	—
Sundry Creditors	12,000	2.74	4,000	0.49
Outstanding Expenses	15,000	3.44	6,000	0.74
Proposed Dividend	10,000	2.28	90,000	11.15
	39,000	8.92	1,00,000	12.38
Total	4,38,000	100.00	8,08,000	100.00

14. The Income Statements of Sanyasi Ltd. are given for the years 2013 and 2014. Convert them into Common-size Income Statement and interpret the changes.

Income Statements for the years ending 2013 and 2014

Particulars	2013	2014
Gross Sales	7,25,000	8,15,000
Less : Sales returns	25,000	15,000
Net Sales	7,00,000	8,00,000
Cost of Sales	5,95,000	6,15,000
Gross Profit	1,05,000	1,85,000
Operating Expenses		
Selling and Distribution Expenses	23,000	24,000
Administrative expenses	12,700	12,500
Total Expenses	35,700	36,500
Operating income	69,300	1,48,500
Other incomes	1,200	8,050
	70,500	1,56,550
Non-operating expenses	1,750	1,940
Net Profit during the year	68,750	1,54,610

Sol :

Common-Size Income Statement
for the year ending 2013 and 2014

Particulars	2013		2014	
	`	%	`	%
Net Sales	7,00,000	100.00	8,00,000	100.00
Less : Cost of Sales	5,95,000	85.00	6,15,000	76.87
Gross Profit	1,05,000	15.00	1,85,000	23.13
Operating Expenses :				
Selling and Distribution Expenses	23,000	3.29	24,000	3.00
Administration Expenses	12,700	1.81	12,500	1.56
Total Expenses	35,700	5.10	36,500	4.56
Operating Income	69,300	9.90	1,48,500	18.56
Other Income	1,200	0.17	8,050	1.00
Total Income	70,500	10.07	1,56,550	19.56
Less : Non Operating Expenses	1,750	0.25	1,940	0.24
Net Profit during the year	68,750	9.82	1,54,610	19.32

Exercise Problems

1. Equity Share Capital 10,00,000
 10% Pref. Share Capital 5,00,000
 18% Debentures 8,00,000
 Loan at 15% (Long period) 1,40,000
 Current Liabilities 3,00,000
 General Reserve 8,00,000
 Find out Capital Gearing from the above particulars.

Ans : [0.8]

2. The following is the Balance Sheet of a company as on 31st March:

Liabilities	Rs.	Assets	Rs.
Share Capital	2,00,000	Land and Buildings	1,40,000
Profit & Loss Account	30,000	Plant and Machinery	3,50,000
General Reserve	40,000	Stock	2,00,000
12% Debentures	4,20,000	Sundry Debtors	1,00,000
Sundry Creditors	1,00,000	Bills Receivable	10,000
Bills Payable	50,000	Cash at Bank	40,000
	8,40,000		8,40,000

Calculate

- (1) Current Ratio
- (2) Quick Ratio
- (3) Inventory to working Capital
- (4) Debt to Equity Ratio
- (5) Proprietary Ratio
- (6) Capital Gearing Ratio
- (7) Current Assets to Fixed Assets

Ans : (1) 2.33 : 1 (2) 1 : 1 (3) 1 : 1 (4) 1.56 : 1 (5) 0.32 : 1 (6) 2.1 : 1 (7) 0.71 : 1.

3. Earn & Company supplies you the following information regarding the year ended 31st December.

	Rs.
Cash Sales	80,000
Credit sales	2,00,000
Return Inward	10,000
Opening Stock	25,000
Closing Stock	30,000
Gross Profit Ratio is 25%	

Find out Inventory Turnover.

Ans : 7.36 Times

4. B. Raj and Co. Sells goods on cash as well as credit (though not on deferred instalment terms). The following particulars are extracted from their books of accounts for the calendar year 2006.

	Rs.
Total Gross Sales	1,00,000
Cash Sales (included in above)	20,000
Sales Returns	7,000
Total Debtors for Sales as on 31.12.2006	9,000
Bills Receivable on 31.12.2006	2,000
Provision for doubtful debts on 31.12.2006	1,000
Total creditors on 31.12.2006	10,000

Calculate the average collection period

Ans : 55 days

5. From the following particulars, draw up the Balance Sheet of the company :

Current Ratio	2.5
Quick Ratio	1.5
Net Working Capital	Rs. 30,000
Stock Turnover Ratio (Cost of Sales/Closing Stock)	6 Times
Gross Profit Ratio	20%
Fixed Assets-Turnover Ratio (Cost of sales)	2 Times
Debtors	2 Months
Fixed Assets to Shareholders' Net Worth	0.8
Reserves & Surplus to Capital	0.5
Long - Term Loans	Rs. 15,000

Ans : 1,10,000

Short Question and Answers

1. Advantages of Ratio Analysis

Ans :

- (i) Ratio analysis will help validate or disprove the financing, investment and operating decisions of the firm. They summarize the financial statement into comparative figures, thus helping the management to compare and evaluate the financial position of the firm and the results of their decisions.
- (ii) It simplifies complex accounting statements and financial data into simple ratios of operating efficiency, financial efficiency, solvency, long-term positions etc.
- (iii) Ratio analysis help identify problem areas and bring the attention of the management to such areas. Some of the information is lost in the complex accounting statements, and ratios will help pinpoint such problems.
- (iv) Allows the company to conduct comparisons with other firms, industry standards, intra-firm comparisons etc. This will help the organization better understand its fiscal position in the economy.

2. Limitations of ratio analysis

Ans :

- i) As ratios are calculated based on the historical data or past performance, they may not necessarily provide the correct information that is useful in decision-making.
- ii) As there are no particular standards or rules of thumb for all the ratios, it is difficult to interpret accurate results.
- iii) In order to draw correct interpretations, a single ratio may not be helpful. For this purpose, a number of ratios are to be calculated which is likely to confuse the financial analyst than to help him in making any meaningful conclusions.
- iv) Changes in the accounting procedures by the firms may mislead the ratio analysis. For example, a change in the methods of

valuating inventory from FIFO to LIFO increases the cost of sales and decreases the value of closing stock. This results in unfavourable stock turnover ratio and gross profit ratio.

- v) In inflationary conditions, the accounting data of several years cannot be compared and therefore analysis based on such data is not accurate.
- vi) As ratio analysis is purely quantitative in nature, other aspects such as managerial efficiency, employee performance cannot be interpreted.
- vii) Comparison of ratios of one firm to the other in an industry is not possible due to their differences in sizes, accounting procedures etc.
- viii) As changes in price is not considered while calculating ratios, this may adversely affect the interpretation.

3. Common Size Statement analysis.

Ans :

Common Size Statements are of immense use while comparing business enterprises which differ substantially in size as it provides an insight into the structure of financial statements. Common Size Statements help in better understanding of the important changes which have occurred in the enterprise over a period of time.

Common Size Statements are those in which individual figures are converted into percentages to some common base. Percentage of each individual item shows its relation to its respective total i.e. Total Assets or Total Liabilities or Total Net Sales.

Common Size Statement analysis is called as 'Vertical Analysis' since each accounting variable is analysed vertically.

Common Size Statements may be prepared for the Balance Sheets as well as for the Income statements. Normally, Total Assets or Total Liabilities is taken as a base for the Balance Sheet items and the figure of net sales is taken as the base for the income statement items.

4. Stock Turnover Ratio

Ans :

Meaning

This ratio establishes a relationship between costs of goods sold and average inventory.

Objective

The objective of computing this ratio is to determine the efficiency with which the inventory is utilized.

Components

There are two components of this ratio which are as under:

- 1) Cost of Goods Sold
- 2) Average Inventory

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:

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

$$\text{Cost of Goods sold} = \text{Sales} - \text{Gross Profit}$$

or

$$\text{Cost of Goods sold} = \text{Opening Stock} + \text{Purchases} + \text{Direct Expenses} - \text{Closing Stock}$$

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{\text{Average Stock}}$$

Note:

- i) If opening stock is not known, closing stock can be taken.
- ii) If there is any difficulty in calculating cost of goods sold, then

$$\text{Stock Turnover Ratio} = \frac{\text{Net Sales}}{\text{Average Stock}}$$

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, call 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 a satisfactory level.

5. Liquidity ratios

Ans :

Liquidity refers to the ability of a concern to meet its current obligations as and when these become due. Liquidity ratios are calculated to measure short-term financial soundness of the business. The short-term obligations are met by realizing amounts from current, floating or circulating assets. The current assets should either be liquid or near liquidity. These should be convertible into cash for paying obligations of short-term nature. The sufficiency or insufficiency of current assets should be assessed by comparing them with short-term (current) liabilities. If current assets can pay off current liabilities, then liquidity position will be satisfactory.

On the other hand, if current liabilities may not be easily met out of current assets then liquidity position will be bad. The bankers, suppliers of goods and other short-term creditors are interested in the liquidity of the concern. They will extend credit only if they are sure that current assets are enough to pay out the obligations. To measure the liquidity of a firm, the following ratios can be calculated:

1. Current Ratio or Working Capital Ratio
2. Quick or Acid Test or Liquid Ratio
3. Absolute Liquid Ratio or Cash Position Ratio

6. Managerial uses of Financial Statement Analysis.

Ans :

There are a number of users of financial statement analysis. They are:

- (i) **Creditors:** Anyone who has lent funds to a company is interested in its ability to pay back the debt, and so will focus on various cash flow measures.
- (ii) **Investors:** Both current and prospective investors examine financial statements to learn about a company's ability to continue issuing dividends, or to generate cash flow, or to continue growing at its historical rate (depending upon their investment philosophies).
- (iii) **Management:** The company controller prepares an ongoing analysis of the company's financial results, particularly in relation to a number of operational metrics that are not seen by outside entities (such as the cost per delivery, cost per distribution channel, profit by product, and so forth).
- (iv) **Regulatory Authorities:** If a company is publicly held, its financial statements are examined by the Securities and Exchange Commission (if the company files in the United States) to see if its statements conform to the various accounting standards and the rules of the SEC.

7. What is Ratio Analysis? Explain the objectives of ratio analysis?

Ans :

According to Myers, "Ratio analysis is a study of relationship among the various financial factors in a business".

Thus, ratio analysis measures the profitability, efficiency and financial soundness of the business.

Ratio analysis is to present the figure of financial statement in simple and intangible form. Ratio analysis is to present the figure of financial statement in simple and intangible form. Ratio analysis, in this way, is the process of establishing meaningful relationship between two figures and set of financial statement.

Objectives

The objectives of ratio analysis are as follows:

- (i) **Measuring the Profitability:** The profitability of the business can be measured by calculating gross profit, net profit, expenses ratio and other.
- (ii) **Judging the Operational Efficiency of Business:** The operational efficiency of the business can be ascertained by calculating operating ratio.
- (iii) **Assessing the Solvency of the Business:** It can be ascertained whether the firm is solvent or not by calculating solvency ratio. Solvency ratios show relationship between total liabilities and total assets. If total assets are lesser than the total liabilities it shows unsound position of the business.

8. Nature of ratio analysis.

Ans :

In financial analysis, ratio is used as an index of yardstick for evaluating the financial position and performance of the firm. It is a technique of analysis and interpretation of financial statements. Ratio analysis helps in making decisions as it helps in establishing relationship between various ratios and interpret thereon. Ratio analysis helps analysts to make quantitative judgement about the financial position and performance of the firm. Ratio analysis involves following steps:

- (a) Relevant data selection from the financial statements related to the objectives of the analysis.
- (b) Calculation of required ratios from the data and presenting them either in pure ratio form or in percentage.
- (c) Comparison of derived different ratios with :
 - (i) The ratio of the same concern over a period of years to know upward or downward trend or static position to help in estimating the future, or
 - (ii) The ratios of another firm in same line, or
 - (iii) The ratios of projected financial statements, or

- (iv) The ratios of industry average, or
- (v) The predetermined standards, or
- (vi) The ratios between the departments of the same concern assessing either the financial position or the profitability or both.

9. Importance of Financial Statement Analysis.

Ans :

The financial statement analysis is important for different reasons:

- (i) **Holding of Share:** Shareholders are the owners of the company. They may have to take decisions whether they have to continue with the holdings of the company's share or sell them out. The financial statement analysis is important as it provides meaningful information to the shareholders in taking such decisions.
- (ii) **Decisions and Plans:** The management of the company is responsible for taking decisions and formulating plans and policies for the future. They, therefore, always need to evaluate its performance and effectiveness of their action to realise the company's goal in the past. For that purpose, financial statement analysis is important to the company's management.
- (iii) **Extension of Credit:** The creditors are the providers of loan capital to the company. Therefore they may have to take decisions as to whether they have to extend their loans to the company and demand for higher interest rates. The financial statement analysis provides important information to them for their purpose.

10. Activity Ratios

Ans :

Funds are invested in various assets in business to make sales and earn profits. The efficiency with which assets are managed directly affects the volume of sales. The better the management of assets, the larger is the amount of sales and the profits. Activity ratios measure the efficiency or effectiveness with which a firm manages its resources or assets. These ratios are also called turnover ratios because they

indicate the speed with which assets are converted or turned over into sales. It includes the following ratios:

1. Capital Turnover Ratio
2. Fixed Assets Turnover Ratio
3. Working Capital Turnover Ratio
4. Stock Turnover Ratio
5. Debtors Turnover Ratio (or Receivables Turnover Ratio).
6. Creditors Turnover Ratio (or Payables Turnover Ratio).

11. Purpose of common size statement.

Ans :

Common Size Statements are of great value in forming the opinion regarding the progress of business firm. Following are the main purposes of preparing common size statements:

(i) Presenting the change in various items in relation to total assets or total liabilities or net sales

One of the major drawback of comparative financial statements is that they do not present the change in various items in relation to total assets or total liabilities or net sales. This drawback is removed through the preparation of Common size statements.

(ii) Establishing a Relationship

Over a period of time, a relationship has been established between various items of the Profit and Loss Account i.e. Income Statement to sales and various items of Balance Sheet to total assets or total liabilities. Meaningful conclusions can be drawn by studying the changes in relationship.

(iii) Providing a Common Base for Comparison

Common size statements provide a common base for comparison. Financial Statements of different periods and different firms can be converted into uniform common size format irrespective of the size of individual items. Thus, the Common size statements facilitate the comparison of profitability and financial position of two or more business over a period of time.

Choose the Correct Answers

1. Profitability ratios are based on, [c]
(a) Sales (b) Investment
(c) Both (a) and (b) (d) Purchases.
2. According to modus operandi, analysis are divided into, [d]
(a) Horizontal analysis (b) Vertical analysis
(c) Internal analysis (d) Both (a) and (b)
3. Following are the methods used in analyzing financial statements are, [d]
(a) Trend ratios (b) Ratio analysis
(c) Comparative analysis (d) All the above.
4. Ratio analysis is useful to, [b]
(a) Management (b) Both (a) and (c)
(c) Government (d) Students.
5. The ratio which measures the relationship between operating cost and net sales is, [a]
(a) Operating ratio (b) Gross profit ratio
(c) Net profit ratio (d) Operating profit ratio.
6. Dividend coverage ratio = [c]
(a) $\frac{\text{PBIT}}{\text{Interest}}$ (b) $\frac{\text{PAT}}{\text{Interest}}$
(c) $\frac{\text{PAT}}{\text{Dividend}}$ (d) $\frac{\text{PBIT}}{\text{Dividend}}$
7. The ratio which establishes relationship between net sales and working capital, [a]
(a) Working capital turnover ratio (b) Debtors turnover ratio
(c) Stock turnover ratio (d) None.
8. Return on investment can be calculated by using, [d]
(a) Return on total asset (b) Return on shareholder's fund
(c) Return on capital employed (d) All the above.
9. Standard or Thumb rule of a current ratio is, [b]
(a) 1:1 (b) 2:1
(c) 2:4 (d) 1:3
10. The statement which shows the percentage of net sales that are absorbed by each individual item representing cost or expense is, [d]
(a) Common size balance sheet (b) Comparative income statement
(c) Trend ratios (d) Common size income statement.

Fill in the blanks

1. _____ is a collection of data which is organized according to the logical and consistent accounting procedures.
2. _____ is a major tool used for analyzing the financial statements.
3. _____ ratio facilitates to identify whether the company has enough capability to meet its short term obligations/requirements.
4. Capital turnover ratio = _____
5. The ratio which measures the relationship between gross profit and net sales is _____.
6. EBIT Means _____.
7. The items of the financial statements are presented as percentage of a particular item in _____.
8. Leverage ratios are also known as _____.
9. The ratio which measures the profitability of the firm on per equity share basis is _____.
10. Ratio analysis suffers from lack of _____.

ANSWERS

1. Financial statements
2. Ratio analysis
3. Liquidity
4. Net sales Total capital employed
5. Gross profit ratio
6. Earning before interest and tax
7. Common size statements
8. Capital structure ratios
9. Earning per share
10. Consistency.

UNIT IV

Cash Flow Statement – Advantages and Utility of Cash flow statement – Preparation of Cashflow statement (Including Numerical problems) - Tax planning – Tax Avoidance – Taxevasion; Cost concepts – Classification of Costs- – preparation of cost sheet (no numericals)

4.1 CASH FLOW STATEMENT

4.1.1 Advantages and Utility

Q1. Define cash flow statement. What are the advantages and disadvantages of cash flow statements.

(OR)

Explain the various utilities of the cash flow statement analysis.

(OR)

What is Cash Flow Statement? What are the advantages of Cash Flow Statement?

Ans : (Nov.-20, Jan.-20, Aug.-18, June.-18, Feb.-17)

Meaning

Cash plays a very important role in the entire economic life of a business. A firm needs cash to make payments to its suppliers, to incur day-to-day expenses and to pay salaries, wages, interest and dividends, etc. In fact, what blood is to a human body, cash is to a business enterprise. It is very essential for a business to maintain an adequate balance of cash. But many a times, a concern operates profitably and yet it becomes very difficult to pay taxes and dividends. This may be because (i) although huge profits have been earned yet cash may not have been received or (ii) even if cash has been received; it may have drained out (used) for some other purposes. This movement of cash is of vital importance to the management.

A statement of changes in the financial position of firm on cash basis is called a cash flow statement. Such a statement enumerates net effects of the various business transactions on cash and takes

into account receipts and disbursements of cash. A cash flow statement summarizes the causes of changes in cash position of a business enterprise between dates of two balance sheets.

Cash flow statement is a statement of changes of financial position in business due to inflow or outflow of cash and their statement is required for short-range business premises.

Advantages

A cash flow statement is useful for short-term planning. A business enterprise needs sufficient cash to meet its various obligations in the near future such as payment for purchase of fixed assets, payment of debts maturing in the near future, expenses of the business, etc.

A cash flow analysis is an important financial tool for the management. Its chief advantages are as follows:

1. Helps in Efficient Cash Management

Cash flow statement helps in evaluating financial policies and cash position, cash is the basis for all operations and hence a projected cash flow statement will enable the management to plan and coordinate the financial operations properly.

2. Helps in Internal Financial Management

Cash flow statement provides information about funds, which will be available from operations. This will help the management in determining policies regarding internal financial management, for example, possibility of repayment of long-term debt, dividend policies, planning replacement of plant and machinery, etc.

3. Disclose the Movements of Cash

Cash flow statement discloses the complete story of cash movement. The increase or decrease in cash and the reason therefore can be known. It discloses the reasons for low cash balance in spite of heavy operating profits or for heavy cash balance in spite of low profits. However, comparison of original forecast with the actual results highlights the trends of movement of cash, which may otherwise go undetected.

4. Discloses Success or Failure of Cash Planning

The extent of success or failure of cash planning can be known by comparing the projected cash flow statement with the actual cash flow statement and necessary remedial measures can be taken.

5. Helpful in Declaring Dividends etc

Cash flow statement is very helpful in declaring dividends etc. This statement can supply information regarding availability of cash. If cash is available, dividend can be paid. Thus, it helps to understand the liquidity. It must be paid within 42 days.

Disadvantages

The disadvantages of cash flow statement are as follows:

1. Ignores Basic Principle of Accounting

As cash flow statement is based on cash basis of accounting, it ignores the basic accounting concept of accrual basis.

2. Not Suitable for Judging Profitability

Cash flow statement is not suitable for judging the profitability of a firm, as non-cash charges are ignored while calculating cash flows from operating activities.

3. Cannot be Equated with Income Statement

Cash flow statement cannot be equated with the income statement. An income statement takes into account both cash as well as non-cash items and, therefore, net cash does not necessarily mean net income of the business.

4. May not Represent Real Liquid Position

The cash balance as disclosed by the cash flow statement may not represent the real liquid position of the business since it can be easily influenced by postponing purchases and other payments.

4.1.2 Preparation of Cashflow statement**Q2. Write the procedure for preparing cash flow statement.**

Ans :

The Institute of Chartered Accountants of India has issued in 1997 the Accounting Standard AS-3 (revised) Relating to cash flow statement which has superseded AS-3 issued earlier. As per recent proposed format issued by the SEBI (Securities Exchange Board of India) it is mandatory for each company to give a copy of its cash flow statement along with a copy of its final accounts.

The cash flow statement can be classified into following activities:

1. Operating activities,
2. Investing activities, and
3. Financing activities.

1. Operating activities

The amount of cash flows arising from operating activities is a key indicator of the extent to which the operations of the enterprise have generated sufficient cash flows to maintain the operating capability of the enterprise, pay dividends, repay loans, and make new investments without recourse to external sources of financing. Information about the specific components of historical operating cash flows is useful, in conjunction with other information in forecasting future operating cash flows.

Cash flows from operating activities are primarily derived from principal revenue producing activities of the enterprise. Therefore, they generally result from the transactions and other events that enter into the determination of net profit or loss.

Examples of Cash Flows Arising from Operating Activities

- (i) Cash receipts from the sale of goods and the rendering of services;
- (ii) Cash receipts from royalties, fees, commissions and other revenue;
- (iii) Cash payments to suppliers for goods and services;
- (iv) Cash payments to and on behalf of employees;
- (v) Cash receipts and cash payments of an insurance enterprise for premiums and claims, annuities and other policy benefits;
- (vi) Cash payments of refunds of income taxes unless they can be specifically identified with financing and investing activities; and
- (vii) Cash receipts and payments relating to future contracts, forward contracts, option contracts and swap contracts when the contracts are held for dealing or trading purpose.

Some transactions, such as the sale of an item of plant, may give rise to a gain or loss which is included in the determination of net profit or loss. However, the cash flows relating to such transactions are cash flows from investing activities.

An enterprise may hold securities and loans for dealing or trading purposes, in which case they are similar to inventory acquired specifically for resale. Therefore, cash flows arising from the purchase and sale of dealing or selling securities are classified as operating activities. Similarly, cash advances and loans made by financial enterprises are usually classified as operating activities since they relate, to the main revenue producing activity of that enterprise.

2. Investing Activities

The separate disclosure of cash flows arising from investing activities is important because the cash flows represent the extent to which expenditures have been made for resources intended to generate future income and cash flows.

Examples of Cash Flows Arising from Investing Activities

- (i) Cash payment to acquire fixed assets (including intangibles). These payments include those relating to capitalized research and development costs and self-constructed fixed assets;
- (ii) Cash receipts from disposal of fixed assets (including intangibles);
- (iii) Cash payments to acquire shares, warrants, or debt instruments of other enterprises and interests in joint ventures (other than payments for those instruments considered to be cash equivalents and those held for dealing or trading purposes);
- (iv) Cash receipts from disposal of shares, warrant, or debt instrument of other enterprises and interests in joint ventures (other than receipts from those instruments considered to be cash equivalents and those held for dealing or trading purposes);
- (v) Cash advances and loans made to third parties (other than advances and loans made by a financial enterprise);
- (vi) Cash receipts from the repayment of advances and loans made to third parties (other than advances and loans of a financial enterprise);
- (vii) Cash payments for future contracts, forward contracts, option contracts, and swap contracts except when the contracts are held for dealing or trading purposes, or the payment are classifieds financing activities; and
- (viii) Cash receipts for future contract, forward contracts, option contracts, and swap contracts except when the contracts are held for dealing or trading purposes, or the receipts are classified as financing activities.

When a contract is accounted for as hedge the cash flows of the contract are classified in the same manner as the cash flows of the position being hedged.

3. Financing Activities

The separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of funds (both capital and borrowings) to the enterprise.

Examples of Cash Flows Arising from Financing Activities

1. Cash proceeds from issuing shares or other similar instruments;
2. Cash proceeds from issuing debentures, loans, notes, bonds and other short or long-term borrowings; and
3. Cash repayments of amounts borrowed.

Q3. Explain the format of cash flow statement as per Accounting Standard - 3 (AS-3).

Ans :

The formats of cash flow statement given by Accounting Standard No-3 is shown below,

Format of Cash Flow Statement as per AS-3 (Direct Method)

Particulars	Amount (₹)	Amount (₹)
Cash Flows from Operating Activities:		
Cash receipts from customers	xxx	
Cash paid to suppliers and employees	(xxx)	
Cash generated from operations	xxx	
Income taxes paid	(xxx)	
Cash flow before extraordinary item	xxx	
Proceeds from earthquake disaster settlement	xxx	
Net cash from operating activities (A)	xxx	xxx
Cash Flows from Investing Activities:		
Purchase of fixed assets	(xxx)	
Proceeds from sale of equipment	xxx	
Interest receivedxxx		
Dividend received	xxx	
Net cash from investing activities (B)	xxx	xxx
Cash Flows from Financing Activities:		
Proceeds from issue of share capital	xxx	
Proceeds from long-term borrowings	xxx	
Repayment of long-term borrowings	(xxx)	
Interest paid	(xxx)	
Dividend paid	(xxx)	
Net cash used in financing activities (C)	(xxx)	(xxx)
Net increase in cash and cash equivalents (A + B + C)		xxx
Add: Cash and cash equivalents at the beginning of the period		xxx
Cash and cash equivalents at the end of the period		xxx

Revised Format of Cash Flow Statement as per AS-3 (Indirect Method)

Particulars	Amount (₹)	Amount (₹)
Cash Flows from Operating Activities		
Net profit before taxation (excluding extraordinary profit/loss)	xxx	
Add: Depreciation	xxx	
Goodwill written off	xxx	
Preliminary expenses written off	xxx	
Interest expenses (for long-term loan/debentures)	xxx	
Loss on sale of assets, long-term investments	xxx	
Proposed dividends	xxx	
	xxx	
Less: Profit on sale of investment, assets etc	xxx	
Interest income (from long-term investments)	xxx	
Dividend income (from long-term investments)	xxx	
Operating profit/Cash Generated from Operations Before Working Capital Charges	xxx	
Decrease in Debtors/ (Increase in Debtors)	xxx	
Decrease in Stocks/ (Increase in Stocks)	xxx	
Decrease in Bills Receivable/ (Increase in Bills Receivable)	xxx	
Decrease in Prepaid Expenses/ (Increase in Prepaid Expenses)	xxx	
Increase in Creditors/ (Decrease in Creditors)	xxx	
Increase in Bills Payable/ (Decrease in Bills Payable)	xxx	
Increase in Outstanding Expenses/ (Decrease in Outstanding	xxx	
Cash Generated from Operations	xxx	
Less: Income taxes paid	xxx	
Net Cash from Operating Activities (A)	xxx	
Cash Flows from Investing Activities		
Purchase of Fixed Assets	xxx	
Purchase of Investments	xxx	
Proceeds from Sale of Fixed Assets	xxx	
Proceeds from Sale of Investments	xxx	
Interest Received	xxx	
Dividend Received	xxx	xxx
Net Cash from Investing Activities (B)		xxx

Cash Flows from Financing Activities		
Proceeds from Issue of Share Capital	xxx	
Proceeds from Long-term Loans	xxx	
Proceeds from Issue of Debentures	xxx	
Redemption of Preference Shares	xxx	
Redemption of Debentures	xxx	
Interest paid	xxx	
Repayment of Long-term Loans/Borrowing	(xxx)	
Dividends paid	(xxx)	
Interim dividends paid	(xxx)	
Net Cash from Financing Activities (C)		<u>xxx</u>
Net Increase in Cash and Cash Equivalents (A + B + C)		xxx
Add: Cash and Cash Equivalents at the Beginning of the Period		xxx
Cash and Cash Equivalents at the End of the Period		<u>xxx</u>

Note: The values in brackets indicate deductions i.e, (-) sign.

PROBLEMS

- From the following summary cash account of Y Ltd., prepare cash flow statement for the current year ended March 31 in accordance with AS-3 using the direct method. The company does not have any cash equivalents.

Summary Cash Account for the current year ended March 31.

Particulars	Rs.	Particulars	Rs.
Opening Balance	50,000	Payment to suppliers	20,00,000
Issue of equity shares	3,00,000	Purchase of fixed assets	2,00,000
Receipts from customers	28,00,000	Overhead expenses	2,00,000
Sale of fixed assets	1,00,000	Wages and salaries	1,00,000
		Taxation	2,50,000
		Dividend	50,000
		Repayment of bank loan	3,00,000
		Closing Balance	1,50,000
	<u>32,50,000</u>		<u>32,50,000</u>

Sol :

(Feb.-17)

- (i) Cash Receipts from Customers = 28,00,000
 (ii) Cash Payments = 20,00,000
 Cash paid for expenses = 2,00,000 + 1,00,000 = 3,00,000

Cashflow Statement

Particulars	Amount	Amount
Cash flow from operating activities		
Cash receipts	28,00,000	
(-) Cash payment	20,00,000	
(-) Cash paid for expenses	3,00,000	
Cashflow generated from operating activities		5,00,000
(-) Tax paid		2,50,000
Cashflow operating activity → (A)		2,50,000
<u>Cashflow from investing activities</u>		
Sale of fixed assets	1,00,000	
(-) Purchase of fixed assets	(2,00,000)	
Cashflow from investing activities → (B)		(1,00,000)
<u>Cashflow from financing activities</u>		
Issue of equity shares	3,00,000	
Repayment of bank loan	(3,00,000)	
Dividend paid	(50,000)	
Cashflow from financing activities → (C)		(50,000)
Net increase in cash & its equivalents		1,00,000
(+) Opening balance of cash & its equivalents		50,000
Closing balance of cash & its equivalents		1,50,000

2. From the following details, prepare a cash flow statement.

Balance Sheets

Liabilities	2017 (₹)	2018 (₹)	Assets	2017 (₹)	2018 (₹)
Share Capital	10,000	15,000	Land	4,000	4,000
P & L A/c	5,000	8,000	Machinery	3,000	5,000
General Reserve	4,000	6,000	Stock	10,000	12,000
Creditors	8,000	12,000	Debtors	10,000	15,000
Bills payable	5,000	3,000	Cash	5,000	8,000
	<u>32,000</u>	<u>44,000</u>		<u>32,000</u>	<u>44,000</u>

Additional Information :

During the year depreciation charged on machinery for ₹ 1,000 and dividend paid ₹ 2,000.

Ans :

(Jan.-19)

Cash flow statement

Particulars	Amount (₹)	Amount (₹)
Cash flows from operating activities :		
Increase in the balance of P and L A/c	3,000	
Adjustments for non - cash items :		
Add : Increase in reserves	2,000	
Dividend paid	2,000	
Depreciation	1,000	
Operating profit before working capital changes	8,000	
Adjustments for changes in current operating assets and liabilities		
Add : Increase in creditors	4,000	
Less : Decrease in Bills payable	(2,000)	
Less : Increase in Debtors	(5,000)	
Less : Increase in Stock	(2,000)	
Net cash from operating activities cash flow from investing activities		3,000
Purchase of machinery (WN-1)	(3,000)	
Net cash used in investing activities cash flow from financing activities :		(3,000)
Increase in share capital	5,000	
Dividend paid	2,000	
		3,000
Net increase in cash or cash equivalents		3,000
Cash and cash equivalent at the beginning of the year.		5,000
Cash and cash equivalent at the end of the year.		8,000

Working Notes - 1**Dr.****Machinery Account****Cr.**

Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance b/d	3,000	By depreciation	1,000
To cash purchased balance figure	3,000	By balance c/d	5,000
	6,000		6,000

3. From the following information prepare cash flow statement by indirect method of Ram Business Corporation.

Liabilities and Capital	Jan.-1, 2015	31-12-2015	Assets	Jan.-1, 2015	31-12-2015
Share capital	35,000	43,500	Cash and bank	40,000	44,400
Surplus	15,000	19,500	Accounts receivable	10,000	20,700
Bonds payable	22,000	22,000	Inventories	15,000	15,000
Bonds payable discount	(2,000)	(1,800)	Land and building	4,000	4,000
Current liabilities	30,000	20,000	Business premises	20,000	16,000
Bank loan	–	12,000	Plant and equipment	15,000	17,000
			Accumulated depreciation	(5,000)	(2,800)
			Patents and trademarks	1,000	900
	1,00,000	1,15,200		1,00,000	1,15,200

Additional Information

- (i) A building that costs ` 4,000 and which had a book value at ` 1,000 was sold for ` 1,400.
- (ii) The depreciation charge for the period was ` 800.
- (iii) There was a ` 5,000 issue of capital stock.
- (iv) Cash dividend of ` 2,000 and stock dividend of ` 3,500 were declared.

Sol :

(Aug.-18)

Cash Flow Statement in the Books of Ram Business Corporation for the Year Ending 2015

Particulars	Amount (`)	Amount (`)
Cash Flows from Operating Activities		
Surplus	4,500	
Add: Depreciation accumulated	3,000	
Patents and trademarks written off	100	
Bonds payable discount	(200)	2,900
		7,400
Less: Increase in accounts receivable	(10,700)	
Profit on sale of building	(400)	
Decrease in current liabilities	(10,000)	(21,100)
Net Cash from Operating Activities (A)		(13,700)

Cash Flow from Investing Activities		
Purchase of plant and equipment	(2,000)	
Proceeds from sale of building	1,400	(600)
Net Cash Flow from Investing Activities (B)		(600)
Cash Flow from Financing Activities		
Issue of capital stock	5,000	
Dividend paid in stock	3,500	
Dividend paid	(2,000)	
Bank loan	12,000	
Amortization of discounted bond	200	18,700
Net Cash Flow from Financing Activities (C)		18,700
Net increase in cash equivalents (A + B + C)		4,400
Add: Cash at beginning		40,000
Net Cash at End		44,400

Working Notes

Dr.	Building Account (Business Premises)		Cr.
Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance b/d	20,000	By Cash sales	1,400
To P & L a/c (Profit on Sale)	400	By Accumulated depreciation	3,000
(Bal. fig.)		By Balance c/d	16,000
	20,400		20,400

Dr.	Capital Stock Account		Cr.
Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance b/d	43,500	By Cash	5,000
		By Stock dividends	3,500
		By Balance c/d	35,000
	43,500		43,500

Dr. Accumulated Depreciation Account Cr.			
Particulars	Amount (`)	Particulars	Amount (`)
To Balance b/d	2,800	By Profit and loss a/c	800
To Building a/c	3,000	By Balance c/d	5,000
	5,800		5,800

4. Prepare Cash flow statement from following :

Balance Sheet of Ramana Sree Ltd.

Liabilities	31-3-2015 Rs.	31-3-2015 Rs.	Assets	31.3-2015 Rs.	31.3-2015 Rs.
Share Capital	220000	220000	Land & Building	40000	37500
Share premium	30000	30000	Machinery	7000	100000
Secured loan	--	27000	Investment	90000	85000
General reserve	50000	30000	Current Assets	230000	60000
P & L A/c	32000	43000	Cash	10000	7500
Current Liabilities	98000	110000	Debtors	18300	167500
Proposed dividend	7000	40000	Bank balance	41700	42500
	500000	500000		500000	500000

Addition information :

1. Depreciation on building is Rs.10000
2. During the year machinery costing Rs.9500(WDV Rs.1700) was sold for Rs.3500

Sol : (June-18)

Cash Flow Statement in the Books of Ramana Sree Ltd for the Year Ending 2016

Particulars	Amount (`)	Amount (`)
Cash Flows from Operating Activities		
Net Profit (43,000 – 32,000)		11,000
Add: Depreciation on building	10,000	
General reserve	(20,000)	
Proposed dividend	40,000	
Written off current asset	1,70,000	2,00,000
		2,11,000
Less: Increase in debtors	(1,49,200)	
Profit on sale of machinery	(1,800)	
Increase in current liabilities	12,000	(1,39,000)
Net Cash from Operating Activities (A)		72,000

Cash Flow from Investing Activities		
Purchase of machinery	(31,700)	
Purchase of building	(7,500)	
Proceeds from sale of machinery	3,500	
Proceeds from sale of investment	5,000	(30,700)
Net Cash from Investing Activities (B)		(30,700)
Cash Flow from Financing Activities		
Dividend paid	(70,000)	
Purchase of secured loan	27,000	(43,000)
Net Cash Flow from Financing Activities (C)		(43,000)
Net decrease in cash equivalents (A + B + C)		(1,700)
Add: Cash at beginning (Cash + Bank)		51,700
Net Cash at the End		50,000

Working Notes

Dr. **Machinery A/c** Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance b/d	70,000	By Bank (Sale of Machinery)	3,500
To P & L A/c (Profit on Sale)	1,800	By Balance c/d	1,00,000
To Bank Purchases (Bal. fig.)	31,700		
	<u>1,03,500</u>		<u>1,03,500</u>

Dr. **Building A/c** Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance b/d	40,000	By Depreciation	10,000
To Bank Purchases (Bal. fig.)	7,500	By Balance c/d	37,500
	<u>47,500</u>		<u>47,500</u>

5. Balance sheets of MLS Black and White as on 1st Jan. 2001 and 31st Dec. 2001.

Liabilities	1.1.2001 (`)	31.12.2001 (`)	Assets	1.1.2001 (`)	31.12.2001 (`)
Creditors	40,000	44,000	Cash	10,000	7,000
Whites loan	25,000	-	Debtors	30,000	50,000
Loan from Bank	40,000	50,000	Stock	35,000	25,000
Capital	1,25,000	1,53,000	Machinery	80,000	55,000
			Land	40,000	50,000
			Buildings	35,000	60,000
	2,30,000	2,47,000		2,30,000	2,47,000

During the year machine costing ` 10,000 (accumulated depreciation ` 3,000) was sold for ` 5,000. The provision for depreciation against machinery as on 1<sup>st</sup> Jan. 2001 was ` 25,000 and on 31st Dec. 2001 ` 40,000. Net profit for the year 2001 amounted to ` 45,000. Prepare cash flow statement.

Sol :

(Nov.-20)

Cash Flow Statement for the Year ended 31st Dec. 2001

Particulars	Amount	Amount (`)
Cash Flow from Operating Activities:		
Net Profit before Tax		45,000
Add: Non Operating Expenses (Debited to Profit and Loss A/c):		
Depreciation (Working Notes - 2)	18,000	
Loss on Sale of Machinery [i.e., 10000 - 3000 - 5000 = 2000]	2,000	20,000
Operating Profit before Working Capital Changes		65,000
Add: Decrease in Current Assets or Increase in Current Liabilities:		
Decrease in Stock	10,000	
Increase in Creditors	4,000	14,000
		79,000
Less: Increase in Current Assets or Decrease in Current Liabilities:		
Increase in Debtors		(20,000)
Net Cash from Operating Activities (A)		59,000
Cash Flow from Investing Activities:		
Purchase of Land	(10,000)	
Purchase of Buildings	(25,000)	
Sale of Machinery	5,000	(30,000)
Net Cash from Investing Activities (B)		(30,000)

Cash Flow from Financing Activities:		
Loan from Bank	10,000	
Repayment of white's Loan	(25,000)	
Drawings (Working Notes - 3)	(17,000)	(32,000)
Net Cash from Financing Activities (C)		(32,000)
Net Decrease in Cash and Cash Equivalents (A + B + C)		(3,000)
Cash and Cash Equivalents at the Beginning of the period		10,000
Cash and Cash Equivalents at the end of the period		7,000

Working Notes 1

Dr.			Machinery Account			Cr.		
Particulars	L.F	Amount (₹)	Particulars	L.F	Amount (₹)	Particulars	L.F	Amount (₹)
To Balance b/d (₹ 80,000 + ₹ 25,000)		1,05,000	By Cash A/c		5,000			
			By Provision for Depreciation		3,000			
			By Loss on Sale of Machinery (10000-3000-5000 = 2000)		2,000			
			By Balance c/d		95,000			
		<u>1,05,000</u>			<u>1,05,000</u>			

Working Notes -2

Dr.			Provision for Depreciation Account			Cr.		
Particulars	L.F	Amount (₹)	Particulars	L.F	Amount (₹)	Particulars	L.F	Amount (₹)
To Depreciation on Machinery		3,000	By Balance b/d		25,000			
Sold								
To Balance c/d		40,000	By Depreciation provided (Balancing Figure)		18,000			
		<u>43,000</u>			<u>43,000</u>			

Working Notes -3

Dr.			Capital Account			Cr.		
Particulars	L.F	Amount (₹)	Particulars	L.F	Amount (₹)	Particulars	L.F	Amount (₹)
To Balance c/d		1,53,000	By Balance b/d		1,25,000			
To Cash (Drawings)		17,000	By Net Profit		45,000			
		<u>1,70,000</u>			<u>1,70,000</u>			

6. From the following details, prepare a cash flow statement.

Balance Sheet

Liabilities	2017 (₹)	2018 (₹)	Assets	2017 (₹)	2018 (₹)
Share capital	50,000	50,000	Gross Block	1,00,000	1,40,000
P & L A/c	80,000	1,10,000	(-) Depreciation	40,000	55,000
Debentures	-	30,000		60,000	85,000
Creditors	20,000	25,000	Stock	60,000	1,00,000
Bills payable	20,000	5,000	Debtors	30,000	40,000
Other C.L	10,000	15,000	Bills receivable	10,000	
Cash	20,000	10,000			
	<u>1,80,000</u>	<u>2,35,000</u>		<u>1,80,000</u>	<u>2,35,000</u>

Sol :

(Jan.-20)

Cash Flow Statement for the Year Ending 31st March 2018

Particulars	Amount (₹)	Amount (₹)
I. Cash Flow from Operating Activities		
Closing balance as per Profit and Loss A/c	1,10,000	
Less: Operating balance as per Profit and Loss A/c	80,000	
Net Profit Before Tax		30,000
Add: Items to be added		
Depreciation on Gross Block (55,000 - 40,000)		15,000
Operating Profit before Working Capital Changes (B + C)		45,000
Less: Increase in Current Assets and decrease in Current Liabilities		
Increase in Stock (40,000)	(40,000)	
Increase in Debtors (10,000)	(10,000)	
Decrease in Bills Payable (15,000)	(15,000)	
	(65,000)	
Add: Increase in Current Liabilities and decrease in Current Assets:		
Increase in creditors 5,000	5,000	
Increase in other Liabilities 5,000	5,000	
Decrease in Bills Receivable 10,000	10,000	
	20,000	45,000
Cash generated from operations (D-E)		0
Less: Income tax paid		
Net cash from operating activities		0

II. Cash flows from investing Activities		
Purchase of Gross Block (1,40,000 – 1,00,000)		(40,000)
Net cash from investing activities		(40,000)
III. Cash Flow from Financing Activities		
Proceeds from long-term borrowings		30,000
Net cash from financing activities		30,000
IV. Net decrease in cash and cash equivalents [I + II + III]		(10,000)
V. Cash and cash Equivalents at Beginning of Period		20,000
VI. Cash and Cash Equivalents at the end of the Period (IV + V)		10,000

7. The following are the Balance Sheets of A Co. Ltd.

Liabilities	2019	2020	Assets	2019	2020
Equity	3000	4000	Land	2000	2500
Share premium	-	100	Machinery	4000	4500
P & L A/c	1000	3000	(-) Depreciation	1400	1500
Debentures	1500	1000	Investments	2600	3000
Profit on redemption of debentures	-	20		200	350
Creditors	1400	1100	Stock	1400	1500
Tax provision	500	1000	Debtors	1000	1500
Proposed dividend	150	200	Cash	350	1570
	<u>7550</u>	<u>10420</u>		<u>7550</u>	<u>10420</u>

Additional information:

- (i) Machinery costing Rs. 500 (accumulated depreciation Rs. 300) was sold for Rs.100.
- (ii) Tax paid during the year Rs. 600.

Sol :

(July-21)

Cash Flow Statement of A Co. Ltd. for the year ending 2020

Particulars	Amount (₹)	Amount (₹)
Cash Flows from Operating Activities :		
Net Profit (3,000 - 1,000)		2,000
Adjustments for Non-Cash and Non-Operating Items :		
Loss on Sale of Machinery	100	
Provision for Tax (Working Notes - 4)	1,100	
Depreciation (Working Notes - 1)	400	
Proposed Dividend	200	1,800
Operating Profit before Working Capital Changed		3,800

Adjustments for Changes in Current Operating Assets and Liabilities :		
Increase in Stock	(100)	
Increase in Debtors	(500)	
Decrease in Creditors	(300)	(900)
Cash Generated from Operations before Tax		2,900
Tax Paid		(600)
Net Cash Flows from Operating Activities (A)		2,300
Cash Flow from Investing Activities :		
Sales of Machinery	100	
Purchase of Machinery (Working Notes - 2)	(1,000)	
Purchase of Land (2,500 - 2,000)	(500)	
Purchase of Investment	(150)	(1,550)
Net Cash used in investing activities (B)		(1,550)
Cash Flow from Financing Activities :		
Issue of Share Capital at Premium (4,000 + 100 - 3,000)	1,100	
Redemption of Debentures at Profit (Working Notes - 3)	(480)	
Proposed Dividend	(150)	470
Net Cash Flow from Financing Activities (C)		470
Net increase in Cash and Cash Equivalent (A + B + C)		1,220
Add : Cash and Cash equivalent at beginning of the year		350
Cash and Cash Equivalents at the end of the year		1,570

WORKING NOTES**Working Note - 1**

Dr.	Depreciation A/c.		Cr.
Particulars	Amount (₹)	Particulars	Amount (₹)
To Machinery A/c	300	By Balance b/d	1,400
To Balance c/d	1,500	By Profit and Loss A/c (Bal. fig.)	400
	<u>1,800</u>		<u>1,800</u>

Working Note - 2

Dr. **Machinery A/c.** Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Balance c/d	4,000	By Cash (Sales)	100
To Cash (Purchases) (Bal. fig.)	1,000	By Accumulated Depreciation	300
		By Profit and Loss A/c (Loss on Sale)	100
		By Balance c/d	4,500
	<u>5,000</u>		<u>5,000</u>

Working Note - 3

Dr. **Debentures A/c** Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Cash	480	By Balance b/d	1,500
To Profit on Redemption of Debentures	20		
To Balance c/d	1,000		
	<u>1,500</u>		<u>1,500</u>

Working Note - 4

Dr. **Provision for Taxation A/c** Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Cash (Paid)	600	By Balance b/d	500
To Balance c/d	1,000	By Profit and Loss A/c (Bal. fig.)	1,100
	<u>1,600</u>		<u>1,600</u>

4.2 TAX PLANNING – TAX AVOIDANCE – TAXEVASION

Q4. Define the following terms :

- (i) Tax planning
- (ii) Tax Avoidance
- (iii) Taxevasion

Ans :

(Aug.-18, June-18, Feb.-17)

(i) Tax planning

It is basically a technique to reduce the tax burden or tax liability. This is a legal measure to reduce the tax liability. Tax planning is applicable for every head of income say salary, business, house, property and other long term incomes. The income tax act itself provided certain planning measures to reduce the tax burden to the assessee.

For example, House property income can be reduced by availing loan for construction or purchase of house. The interest paid is tax deducted and the principle amount is allowed for calculating rebate under Section 88 of IT Act. So, while purchasing the house do not purchase the house with own money. Avail housing loan to reduce the tax burden on house property income.

(ii) Tax Avoidance

Tax avoidance is the ways and means by which an assessee is legally taking advantages of different drawbacks in the Income tax Act, and thereby reducing his tax liability. No legal action can be taken against him for reducing payment of tax. Tax avoidance implies that, the assessee is receiving the benefits of income but it is artificially made as the income of the other person.

(iii) Tax Evasion

If the taxable incomes are not revealed fully to the income tax department then such act is known as tax evasion. In other words tax evasion is the illegal way of reducing tax liability by suppressing income. The unaccounted income is known as "Black Money".

Q5. Discuss the application areas of various tax planning and how it is different from avoidance and evasion.

Ans :

(Jan.-19)

S.No.	Tax Planning	Tax Avoidance	Tax Evasion
1.	Tax planning is a technique to reduce tax burden.	Tax avoidance refers to avoidance of tax payment by respecting the provisions of law but with an intention to obstruct the law	Tax evasion refers to avoidance of tax payment with fraud or means i.e., illegal.
2.	Tax planning can done based on the useful provisions of the law	It is done by considering loop holes in law and taking benefit out of it.	It is done by implementing unfair means.
3.	Tax planning complies with the provisions of law, it is acceptable under law.	Tax avoidance is based on the loop-holes of the law, and is not acceptable under law.	Tax evasion is completely against law.
4.	Tax planning is said to be legal and moral.	Tax avoidance is said to be legal but not moral.	Tax evasion is illegal.

4.3 COST CONCEPTS

Q6. Explain the concept of cost.

Ans :

Meaning

The term cost has a wide variety of meanings. Different people use this term in different senses for different purposes. In common use, the word cost means price. For example, in electronic shop, you may ask like what is the cost of this TV? But for our purpose cost is not the same as price. In management terminology, the term cost refers to "expenditure" and not the "price".

Definitions

- (i) According to the terminology of British Institute of Cost and Works Accounts (ICWA),**
 "cost is the amount of expenditure (actual or notional) incurred on or attributable to a given thing".

- (ii) **In the words of W.M.Harper**, “cost is the value of economic resources used as a result of producing or doing the things costed”.

The AICPA Committee refers cost as “the amount measured in money of cash expended or other property transferred, capital stock issued, service performed, or a liability incurred, in consideration of goods or services received or to be received”.

Thus, it is clear from the above definitions that the meaning and concept of cost is very broad and flexible. Therefore, one can draw the following points from the above definitions.

- Cost represents that portion of acquisition price of goods, property or services, which have been deferred or not yet utilized in connection with the realization of revenues.
- Expenses are all expired costs, which are deductible from revenues.
- Cost is the amount of expenditure that incurred during a course of action.

Q7. What are the elements of costs ?

Ans :

There are three broad elements of cost :

- (a) Material
- (b) Labour
- (c) Expenses

(a) Material

The substance from which the product is made is known as material. It may be in a raw or a manufactured state. It can be direct as well as indirect.

- (i) **Direct Material:** All material which becomes an integral part of the finished product and which can be conveniently assigned to specific physical units is termed as “Direct Material”.

Following are some of the examples of direct material :

- (a) All material or components specifically purchased, produced or requisitioned from stores.

- (b) Primary packing material (e.g. – cartoon, wrapping, cardboard, boxes etc.)
- (c) Purchased or partly produced components.

Direct material is also described as raw-material, process material, prime material, production material, stores material.

- (ii) **Indirect Material :** All material which is used for purposes ancillary to the business and which cannot be conveniently assigned to specific physical units is termed as “Indirect Material”.

Consumable stores, oil and waste, printing and stationery etc. are a few examples of indirect material. Indirect material may be used in the factory the office or the selling and distribution division.

(b) Labour

For conversion of materials into finished goods, human effort is needed, such human effort is called labour. Labour can be direct as well as indirect.

- (i) **Direct labour :** Labour which takes an active and direct part in the production of a particular commodity is called direct labour. Direct labour costs are, therefore specially and conveniently traceable to specific products.

Direct labour is also described as process labour, productive labour, operating labour, manufacturing labour, etc.

- (ii) **Indirect labour :** labour employed for the purpose of carrying out tasks incidental to goods or services provided, is indirect labour. Such labour does not alter the construction, composition or condition of the product. It cannot be practically traced to specific units of output. Wages of store, Keepers, foreman, time – keepers, directors, fees, salaries of salesmen, etc. are all examples of indirect labour costs.

Indirect labour may relate to the factory, the office or the selling and distribution division.

(c) Expenses

Expenses may be direct or indirect.

(i) **Direct expenses** : These are expenses which can be directly, conveniently and wholly allocated to specific cost centers or cost units. Examples of such expenses are: hire of some special machinery required for a particular contract, cost of defective work incurred in connection with a particular job or contract etc.

Direct expenses are sometimes also described as "chargeable expenses".

(ii) **Indirect expenses** : These are expenses which cannot be directly, conveniently and wholly allocated to cost centers or cost units.]

(iii) **Overheads** : It is to be noted that the term overheads has a wider meaning than the term indirect expense overheads include the cost of indirect material, indirect labour besides indirect expenses.

Indirect expenses may be classified under the following three categories :

(a) Manufacturing (works, factory or production) expenses

Such indirect expenses which are incurred in the factory and concerned with the running of the factory or plant are known as manufacturing expenses. Expenses relating to production management and administration are included there in. Following are a few items of such expenses:

Rent, rates and insurance of factory premises, power used in factory building, plant and machinery etc.

(b) Office and Administrative Expenses

These expenses are not related to factory but they pertain to the management and administration of business, such expenses are incurred on the direction and control of an

undertaking. Example are :- office rent, lighting and heating, postage and telegrams, telephones and other charges; depreciation of office building, furniture and equipment, bank charges, legal charges, audit fee etc.

(c) Selling and Distribution Expenses

Expenses incurred for marketing of a commodity, for securing orders for the articles, dispatching goods sold, and for making efforts to find and retain customers are called selling and distribution expenses. Examples are:-

Advertisement expenses, cost of preparing tenders, traveling expenses, bad debts, collection charges etc.

Warehouse charges, packing and loading charges, carriage outwards, etc.

4.3.1 Classification of Costs

Q8. Explain the various Classification of Costs

Ans :

Cost may be classified in various ways :

A) Classification of Cost based on their Nature

We come across three classes, if indirect expenses are classified element wise :

1. Indirect Materials
2. Indirect labour
3. Indirect expenses.

The following are some examples:

1. Indirect materials

Factory: Stores which are consumable; materials for first aid; materials for fire extinguishing etc.

Administration: Cost of stationery; expenses incurred in connection with canteen food stuff; cost incurred for the purpose of cleaning of materials etc.

Selling & Distribution: Expenses incurred with respect of packing of materials; fuel & lubricating oil, charges incurred in respect of delivery van etc.

2. Indirect Labour

Factory: Expenses incurred for payment of salary to the works manager, supervisor, foreman etc.; wages incurred for the purpose of payment made to the indirect workers, stores staff, maintenance & repairs staff etc.; wages incurred for payment to the personnel of the time office & pay-roll department etc.]

Administration: Expenses incurred for the purpose of payment of salary for all the administrative function's employees, starting from the managing director to sweeper; remuneration paid to the directors etc.

Selling & Distribution: Expenses incurred for the payment of salary of the staff of the sales office & for the salary of the distribution men.

3. Indirect Expenses

Factory: Expenses for the purpose of repairs & maintenance; payment of rent, rates & taxes; charges in respect of insurance; depreciation; expenses incurred with respect to stores, expenses other than salaries paid to the repair staff, maintenance staff & stores staff etc.

Administration: All expenses incurred in connection with general administration other than the cost of the materials used & expenses regarding salary. Examples are depreciation; printing charges; rent, rates & taxes payment; cost of postage etc.]

Selling & Distribution: Expenses relating to advertisement & exhibition; cost incurred in respect of market research; payment of rent for godown ; insurance charges; depreciation etc.

B) Classification of Cost based on their Functions

Functionally, costs can be classified under the following heads :

(i) **Prime Cost :** It consists of the costs of direct materials that go into the product, the costs of direct labour and direct expenses. It is also known as direct cost or first cost.

(ii) **Factory Cost :** It consists of prime cost plus factory overhead or works expenses or factory on cost. Factory cost is also known as works cost, production cost or manufacturing cost.

(iii) **Cost of Production :** Also called as office cost, administration cost or it consists of factory cost plus office and administrative expenses.

(iv) **Total Cost or Cost of Sales :** It comprises cost of production plus selling and distribution overheads.

C) Classification of costs based on their Behaviour

On the basis of behaviour or variability, costs may be classified as :

(a) **Variable Costs :** Costs that vary almost in direct proportion to the volume of production are called variable costs. The examples of such costs are direct material, direct labour and direct chargeable expenses, such as electric power, fuel, etc.

(b) **Fixed Costs :** Costs which do not vary with the level of production are known as fixed costs. These costs are called fixed costs because they remain constant irrespective of the level of output. It must, however, be noted that fixed costs do not remain constant for all times. In fact, in the long run all costs have a tendency to vary. Fixed costs remain fixed upto a certain level of production.

(c) **Semi-variable Costs :** Those costs which are partly fixed and partly variable are called semi-variable costs. These costs vary with the level of production but not in direct proportion to the level of production. The examples of such costs are depreciation of machinery, maintenance of equipment, administrative costs, etc.

D) Classification of Costs for Controllability and Decision Making

On the basis of Controllability and Decision Making: Based on the managerial decision making and controllability the classifications are as follows:

- (a) Controllable Cost
- (b) Uncontrollable Cost
- (c) Sunk Cost
- (d) Opportunity Cost
- (e) Replacement Cost
- (f) Conversion Cost

(a) Controllable Costs : Controllable Costs are the costs which can be influenced by the action of a specified number of an undertaking. Controllable Costs incurred in a particular responsibility centre which is influenced by the action of the executive heading. For example, direct materials and indirect materials.

(b) Uncontrollable Costs: Uncontrollable Costs are those costs which cannot be influenced by the action of a specified number of an undertaking. In fact, no cost is controllable; it is only in relation to a particular individual that may specify a particular cost to either controllable or non-controllable. For example, rent and rates.

(c) Sunk cost: These are historical costs which were incurred in the past and are not relevant to the particular decision making problem being considered. While considering the replacement of a plant, the depreciated book-value of the old asset is irrelevant as the amount is a sunk cost which is to be written-off at the time of replacement. Unlike incremental or decremental costs, sunk costs are not affected by increase or decrease of volume. Sunk costs cannot be refunded or recovered. Examples of sunk cost include depreciated fixed assets, development cost already incurred.

(d) Opportunity Cost: Opportunity cost means the cost of forgoing or giving up an opportunity. It is the notional value of going without the next best use of time, effort and money. These indicate the income or potential benefits sacrificed because a certain course of action has been taken. An example of opportunity

costs is the market value forgone or sacrificed when an old machine is being used.

(e) Replacement Cost: Such expenses may be incurred due to factors like change in method of production, an addition or alteration in the factory building, change in flow of production etc. All such expenses are treated as production overheads; when amount of such expenses is large, it may be spread over a period of time.

(f) Conversion Cost: Conversion costs are those costs which are incurred while converting materials into semi-finished or finished goods. It is the aggregate of direct wages, direct expenses and overhead costs of converting raw materials into finished products.

4.4 PREPARATION OF COST SHEET

Q9. Define cost sheet? Explain its purpose.

Ans :

Meaning

Cost sheet is "a document which provides for the assembly of the detailed cost of a cost centre or cost unit". Thus cost sheet is a periodical statement of cost designed to show in detail the various elements of cost of goods produced like prime cost, factory cost of production and total cost. It is prepared at regular intervals, e.g., weekly, monthly, quarterly, yearly, etc. Comparative figures of the previous period may also be shown in the cost sheet so that assessment can be made about the progress of the business.

Purposes

Cost sheet serves the following purposes :

1. It reveals the total cost and cost per unit of goods produced.
2. It discloses the break-up of total cost into different elements of cost.
3. It provides a comparative study of the cost of current period with that of the corresponding previous period.
4. It acts as a guide to management in fixation of selling prices and quotation of tenders.

Q10. Explain the proforma of cost sheet.

Ans :

(Imp.)

Cost sheet format was under cost sheet

Particular	Amt	Amt per unit
Opening stock of raw materials	xxx	
(+) Purchase of raw material	xxx	
Carriage inwards	xxx	
	xxx	
(-) Closing stock of raw material	xxx	xxx
Material consumed		
(+) Direct wages	xxx	
Direct expenses	xxx	
Prime cost	xxx	
(+) Factory over heads :	xxx	
Factors rent	xxx	
Rents & taxes	xxx	
Dep. on factory buildings	xxx	
Dep. on factory plant & machinery	xxx	
Factory electricity	xxx	
Factory high & heating	xxx	
Insurance on factory building	xxx	
Workers manager salary	xxx	
Coal, coke and fuel and water run machine	xxx	
Factory printing & stationery	xxx	
Factory postage, telegram, telephone	xxx	
Factory worker welfare exp.	xxx	
Factory technical staff salary	xxx	
Foreman salary	xxx	
Stores operators salary	xxx	
Repairs to factory building	xxx	
Rep. P & M	xxx	
Service dep. exp.	xxx	
Indirect material	xxx	
Indirect wages	xxx	
Royalties	xxx	
Drawing house of salary	xxx	
Other factory expenses	xxx	
	xxxx	

(-) Sale of scrap value	xxx	
(+) Opening working in progress	xxx	
(-) Closing working in progress	xxx	
Factory cost (or) workers cost		xxx
(+) Office over heads :		
Office staff salaries	xxx	
Office rent, rates, taxes	xxx	
Office electricity	xxx	
Office lighting, heat and water	xxx	
Dep. on office furniture	xxx	
Dep. on office buildings	xxx	
Repairs to office furniture	xxx	
Repairs to office buildings	xxx	
Legal charges	xxx	
Audit fees	xxx	
Directors remuneration	xxx	
Subscription to chamber of comm	xxx	
Office printing & stationery	xxx	
Office postage, telegram, telephone	xxx	
Office advertisement expenses	xxx	
Cost accountant salary	xxx	
Chief accountant salary	xxx	
Bank charges	xxx	
General manager salary	xxx	
Counting office salary	xxx	
Other office expenses	xxx	
	xxx	
(+) Opening stock of finished goods	xxx	
(-) Closing stock of finished goods	xxx	
Office cost (or) cost of production		xxx
(+) Selling and distribution overheads :		
Selling agent salary, commission	xxx	
Selling office admin. exp.	xxx	
Advertisements	xxx	
Showroom rent, lighting etc.	xxx	
Showroom staff welfare expenses	xxx	
Packaging expenses	xxx	
Carriage outwards	xxx	
Selling office, postage, telegram, telephone etc.	xxx	

After sale service expenses	xxx	
Warehousing rent insurance	xxx	
Warehouse staff salary	xxx	
Loss in transit	xxx	
Bad debts	xxx	
Sample, free gifts	xxx	
Discounts	xxx	
Staff bonus	xxx	
Sales agents expenses	xxx	
Branch expenses	xxx	
Repairs to delivery van	xx	
Dep. on delivery van	xxx	
Other selling and distribution expenses	xxx	
		xxx
Cost of sales (or) cost of goods sold		xxx
(+) Profit		xxx
Sales		xxx

Note : While preparing cost sheet the following points are not to be considered in cost sheet:

- i) Donations
- ii) Interest on debentures (Borrowing tax)
- iii) Deposits and loans
- iv) Discount on issue of share and debenture
- v) Profit on sale of fixed asset
- vi) Loss on sale of fixed asset goodwill
- vii) Preliminary expenses
- viii) Income tax
- ix) Obsolescence loss
- x) Wages paid on abnormal idle time
- xi) Transfer to sinking funds
- xii) Penalties and damages
- xiii) Bonus to directors
- xiv) Staff pensions
- xv) Commission to managing
- xvi) Agents and partners
- xvii) Provision for bad and doubtful debts
- xviii) Dividends paid
- xix) Proposed dividend etc. and if other financial transactions.

Exercise Problems

1. Comparative Balance Sheets of Spectrum Co. Ltd., for the year 1991, 1992 are given below:

Assets	1991 Rs.	1992 Rs.
Cash	43,000	58,000
Prepaid expenses	2,000	2,000
Sundry debtors	80,000	90,000
Stock	32,000	40,000
Long-term Investments	50,000	30,000
Machinery (Cost)	25,000	40,000
Building	75,000	90,000
Land	10,000	10,000
	<u>3,17,000</u>	<u>3,60,000</u>
Liabilities		
	Rs.	Rs.
Provision for doubtful debts	2,000	3,000
Accumulated depreciation		
Machinery	3,000	7,500
Buildings	12,000	18,000
Sundry Creditors	33,000	40,000
Outstanding expenses	3,500	4,500
Debentures	40,000	35,000
Equity share capital	2,00,000	2,00,000
P & L Account (Cr)	23,500	52,000
	<u>3,17,000</u>	<u>3,60,000</u>

Additional Information

- Dividend paid during 1992 Rs. 26,500.
- During 1992 Rs. 20,000 worth of Investments sold for Rs. 25,000.
- Machinery worth of Rs 5,000 (Accumulated depreciation Rs. 1,000) sold for Rs. 6,000.
- Prepare cash flow statement for the year 1992.

2. Balance Sheets of A and B on 1.1.1998 and 31.12.1998 were as follows.

Balance Sheet

Liabilities	1.1.98	31.12.98	Assets	1.1.98	31.12.98
Creditors	40,000	44,000	Cash	10,000	7,000
Mrs. A loan	25,000	–	Debtors	30,000	50,000
Loan from Bank	40,000	50,000	Stock	35,000	25,000
Capital	1,25,000	1,53,000	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 provisions for depreciation against machinery as on 1.1.98 was Rs. 25,000 and on 31.12.1998 Rs. 40,000. Net Profit for the year 1998 amounted to Rs. 45,000. You are required to prepare cash flow statement.

3. Balance Sheet of A and B on 1.1.99 and 31.12.99 were as follows.

Balance Sheet

Liabilities	1.1.99 Rs.	31.12.99 Rs.	Assets	1.1.99 Rs.	31.12.99 Rs.
Share Capital	2,00,000	2,50,000	Land & Building	2,00,000	1,90,000
General Reserve	50,000	60,000	Machinery	1,50,000	1,69,000
Profit & Loss Account	30,500	30,600	Stock	1,00,000	74,000
Bank loan (by term)	70,000	–	Sundry Debtors	80,000	64,200
Sundry Creditors	1,50,000	1,35,200	Cash	500	600
Provision for taxation	30,000	35,000	Bank	–	8,000
			Goodwill	–	5,000
	5,30,500	5,10,800		5,30,500	5,10,800

Additional Information :

During the year ended 31st December, 1989

- Dividend of Rs. 23,000 was paid.
- Assets of another company were purchased for a consideration of Rs. 50,000 payable in shares. The following assets were purchased : Stock Rs. 20,000; Machinery Rs. 25,000.
- Machinery was further purchased for Rs. 8,000.
- Depreciation written off of machinery Rs. 12,000.
- Income tax provided during the year Rs. 12,000.
- Loss on sale of machinery Rs. 200 was written off to general reserve.

You are required to prepare the cash flow statement.

Short Question and Answers

1. Explain the various utilities of the cash flow statement analysis.

Ans :

A cash flow statement is useful for short-term planning. A business enterprise needs sufficient cash to meet its various obligations in the near future such as payment for purchase of fixed assets, payment of debts maturing in the near future, expenses of the business, etc.

A cash flow analysis is an important financial tool for the management. Its chief advantages are as follows:

(i) Helps in Efficient Cash Management

Cash flow statement helps in evaluating financial policies and cash position, cash is the basis for all operations and hence a projected cash flow statement will enable the management to plan and coordinate the financial operations properly.

(ii) Helps in Internal Financial Management

Cash flow statement provides information about funds, which will be available from operations. This will help the management in determining policies regarding internal financial management, for example, possibility of repayment of long-term debt, dividend policies, planning replacement of plant and machinery, etc.

(iii) Disclose the Movements of Cash

Cash flow statement discloses the complete story of cash movement. The increase or decrease in cash and the reason therefore can be known. It discloses the reasons for low cash balance in spite of heavy operating profits or for heavy cash balance in spite of low profits. However, comparison of original forecast with the actual results highlights the trends of movement of cash, which may otherwise go undetected.

(iv) Discloses Success or Failure of Cash Planning

The extent of success or failure of cash planning can be known by comparing the projected cash flow statement with the actual cash flow statement and necessary remedial measures can be taken.

2. Tax Planning

Ans :

It is basically a technique to reduce the tax burden or tax liability. This is a legal measure to reduce the tax liability. Tax planning is applicable for every head of income say salary, business, house, property and other long term incomes. The income tax act itself provided certain planning measures to reduce the tax burden to the assessee.

For example, House property income can be reduced by availing loan for construction or purchase of house. The interest paid is tax deducted and the principle amount is allowed for calculating rebate under Section 88 of IT Act. So, while purchasing the house do not purchase the house with own money. Avail housing loan to reduce the tax burden on house property income.

3. Tax Avoidance

Ans :

Tax avoidance is the ways and means by which an assessee is legally taking advantages of different drawbacks in the Income tax Act, and thereby reducing his tax liability. No legal action can be taken against him for reducing payment of tax. Tax avoidance implies that, the assessee is receiving the benefits of income but it is artificially made as the income of the other person.

4. Tax Evasion

Ans :

If the taxable incomes are not revealed fully to the income tax department then such act is known

as tax evasion. In other words tax evasion is the illegal way of reducing tax liability by suppressing income. The unaccounted income is known as "Black Money".

5. Cost

Ans :

The term cost has a wide variety of meanings. Different people use this term in different senses for different purposes. In common use, the word cost means price. For example, in electronic shop, you may ask like what is the cost of this TV? But for our purpose cost is not the same as price. In management terminology, the term cost refers to "expenditure" and not the "price".

Definitions

- (i) **According to the terminology of British Institute of Cost and Works Accounts (ICWA)**, "cost is the amount of expenditure (actual or notional) incurred on or attributable to a given thing".
- (ii) **In the words of W.M.Harper**, "cost is the value of economic resources used as a result of producing or doing the things costed".

6. Variable Costs

Ans :

Costs that vary almost in direct proportion to the volume of production are called variable costs. The examples of such costs are direct material, direct labour and direct chargeable expenses, such as electric power, fuel, etc.

7. Fixed Costs

Ans :

Costs which do not vary with the level of production are known as fixed costs. These costs are called fixed costs because they remain constant irrespective of the level of output. It must, however, be noted that fixed costs do not remain constant for all times. In fact, in the long run all costs have a tendency to vary. Fixed costs remain fixed upto a certain level of production.

8. Semi-variable Costs

Ans :

Those costs which are partly fixed and partly variable are called semi-variable costs. These costs vary with the level of production but not in direct proportion to the level of production. The examples of such costs are depreciation of machinery, maintenance of equipment, administrative costs, etc.

9. Define cost sheet?

Ans :

Cost sheet is "a document which provides for the assembly of the detailed cost of a cost centre or cost unit". Thus cost sheet is a periodical statement of cost designed to show in detail the various elements of cost of goods produced like prime cost, factory cost of production and total cost. It is prepared at regular intervals, e.g., weekly, monthly, quarterly, yearly, etc. Comparative figures of the previous period may also be shown in the cost sheet so that assessment can be made about the progress of the business.

Purposes

Cost sheet serves the following purposes :

- (i) It reveals the total cost and cost per unit of goods produced.
- (ii) It discloses the break-up of total cost into different elements of cost.
- (iii) It provides a comparative study of the cost of current period with that of the corresponding previous period.
- (iv) It acts as a guide to management in fixation of selling prices and quotation of tenders.

10. Define cash flow statement.

Ans :

Cash plays a very important role in the entire economic life of a business. A firm needs cash to make payments to its suppliers, to incur day-to-day expenses and to pay salaries, wages, interest and dividends, etc. In fact, what blood is to a human

body, cash is to a business enterprise. It is very essential for a business to maintain an adequate balance of cash. But many a times, a concern operates profitably and yet it becomes very difficult to pay taxes and dividends. This may be because (i) although huge profits have been earned yet cash may not have been received or (ii) even if cash has been received; it may have drained out (used) for some other purposes. This movement of cash is of vital importance to the management.

A statement of changes in the financial position of firm on cash basis is called a cash flow statement. Such a statement enumerates net effects of the various business transactions on cash and takes into account receipts and disbursements of cash. A cash flow statement summarizes the causes of changes in cash position of a business enterprise between dates of two balance sheets.

11. What are the differences between Funds Flow Statement and Cash Flow Statement ?

Ans :

The following are the main differences between a Funds Flow Statement and a Cash Flow Statement.

Funds Flow Statement	Cash Flow Statement
1. Funds flow statement reveals the changes in working capital between two balance sheet dates.	1. Cash flow statement reveals the changes in cash position between two balance sheet dates.
2. Funds flow statement is based on accrual basis of accounting.	2. Cash flow statement is based on cash basis of accounting.
3. In the case of funds flow statement a schedule of changes in working capital is prepared.	3. No such schedule of changes in working capital is prepared for a cash flow statement.
4. Funds flow statement is useful in planning intermediate and long term financing.	4. Cash flow statement as a tool of financial analysis is more useful for short-term analysis and cash planning.
5. No closing and opening balances appear in funds flow statement.	5. Cash flow statement starts with opening balance of cash and ends with closing cash balance.
6. Funds flow statement deals with all components of working capital.	6. Cash flow statement deals only with cash.
7. Funds flow statement reveals the sources and application of funds. The difference represents net increase or decrease in working capital.	7. Cash flow statement is prepared by taking into consideration the inflows and outflows of cash. All inflows are added to opening cash balance. From this total outflows are deducted. The difference represents the closing balance of the cash.

Choose the Correct Answer

1. _____ is a legal measure to reduce the tax liability. [b]
(a) Tax avoidance (b) Tax planning
(c) Tax evasion (d) Tax income.
2. Parties who are interested in knowing the financial position of a business are, [d]
(a) Owners (b) Employees
(c) Financial institutions (d) All the above
3. The net cash flow are classified into operating, financing and investing activities in _____. [a]
(a) Cash flow statement (b) Funds flow statement
(c) Balance sheet (d) None
4. Cash flows from _____ activities result from the major revenue producing activities of a firm [c]
(a) Financing (b) Investing
(c) Operating (d) Both (a) and (b)
5. As per Accounting Standard-3, Cash Flow is classified into [d]
(a) Operating activities and investing activities
(b) Investing activities and financing activities
(c) Operating activities and financing activities
(d) Operating activities, financing activities and investing activities
6. Cash Flow Statement is also known as [c]
(a) Statement of Changes in Financial Position on Cash basis
(b) Statement accounting for variation in cash
(c) Both a and b
(d) None of the above.
7. The objectives of Cash Flow Statement are [d]
i) Analysis of cash position
ii) Short-term cash planning
iii) Evaluation of liquidity
iv) Comparison of operating Performance
(a) Both i and ii (b) Both i and iii
(c) Both ii and iv (d) i, ii, iii, iv

8. Cash Flow Statement is based upon [a]
- (a) Cash basis of accounting
 - (b) Accrual basis of accounting
 - (c) Credit basis of accounting
 - (d) None of the above
9. Which of the following statements are true? [d]
- i) Cash flow reveals only the inflow of cash
 - ii) Cash flow reveals only the outflow of cash
 - iii) Cash flow is a substitute for income statement
 - iv) Cash flow statement is not a replacement of funds flow statement.
- (a) Only i (b) Only ii
- (c) Both ii and iii (d) Only iv
10. The statement of cash flows does not include cash inflows and outflows for which of the following activities? [d]
- (a) Financing activities
 - (b) Investing activities
 - (c) Operating activities
 - (d) Revenue activities

Fill in the blanks

1. _____ reveals the effects of transactions involving the changes in cash or cash equivalents.
2. Cash flow statement is useful for _____
3. Cash flows are _____ and _____ of cash and cash equivalents.
4. Income from investments is a cash flow from _____ activities.
5. If the taxable incomes are not completely revalued to the income tax department then such act is known as _____
6. Cash flow statement (based on AS-3) indicates change in _____
7. Buy back of shares comes under _____
8. Cash payments to suppliers for goods and services is an example of _____
9. An assessee by full filling those condition as required he can reduce his tax liability. This is known as _____.
10. By using dubious means and fraudulent methods also one can reduce their tax liability. This is known as _____.

ANSWERS

1. Cash flow statement
2. Short-term financial analysis
3. Inflows and outflows
4. Investing
5. Tax evasion
6. Cash and cash equivalents
7. Financing activity
8. Operating activity
9. Tax planning
10. Tax Evasion

UNIT V

CVP analysis – Break-even Point, concept of contribution and P/V Ratio, Margin of Safety(Including Numerical problems) - Managerial uses of Break-even concept – product mix,make or buy decision, capacity utilization, plant shut down decision, Standard Costing –Variance Analysis – Material Variances – Labour Variances (Simple Problems Related to Material and Labour Variances Only)

5.1 CVP ANALYSIS BREAK-EVEN POINT

Q1. Explain break-even analysis.

(OR)

Define CVP analysis.

(OR)

What is meant by CVP analysis?

(OR)

What do you understand by the term break-even analysis?

Ans :

(Aug.-21, Nov.-20, Aug.-18, June-18)

Break-even Analysis refers to the study of cost-volume profit analysis. In the true sense, it refers to the analysis of costs and their possible impact on revenues and volume of the firm. In other words break-even analysis is concerned with the determination of particular volume at which firm's cost will be equal to its revenue profits.

Break-even analysis can be viewed in two ways. First, in the broad sense, it refers to the study of the relationship between cost, volume and profit at different levels of sales or production. Second, in the narrow sense, it refers to a technique of determining the level of operations at which total revenues are equal to total expenses, i.e., the point of no profit or no loss. The point of no profit or no loss is determined as 'Break-even Point' (BEP). The main objective of Break-even analysis is to find out the BEP. The Break-even point is obtained by the following formulas.

- (i) Break-even Point (in units) =
$$\frac{\text{Fixed cost}}{\text{Selling price per unit} - \text{Variable cost per unit}}$$
- $$= \frac{\text{Fixed cost}}{\text{Contribution per unit}} \quad [\because \text{Contribution} = \text{Sales} - \text{Variable cost}]$$
- (ii) Break-even point (in sales) =
$$\frac{\text{Fixed cost}}{\text{Contribution}} \times \text{Sales} = \frac{\text{Fixed cost}}{\text{P/V Ratio}} \quad \left[\because \text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \right]$$

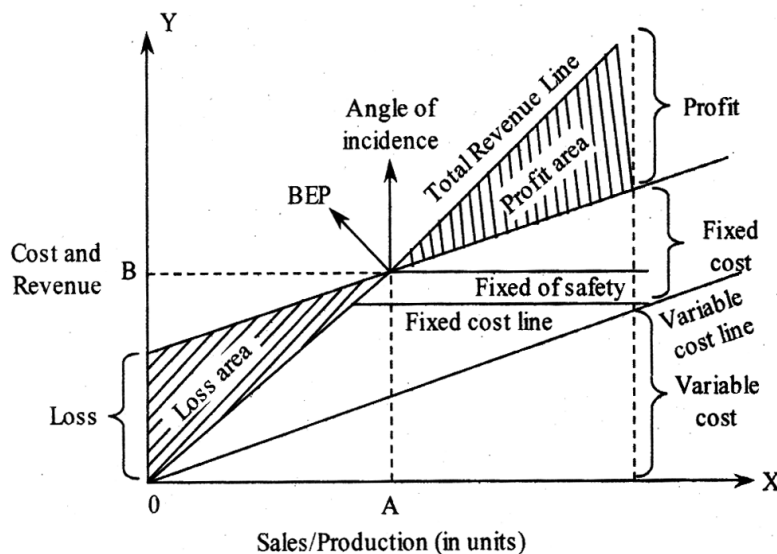


Fig. : BEP (Break-Even Point)

Cost-volume-profit (CVP) analysis is a key step in many decisions. CVP analysis involves specifying a model of the relations among the prices of products, the volume or level of activity, unit variable costs, total fixed costs, and the sales mix. This model is used to predict the impact on profits of changes in those parameters.

1. Contribution Margin

Contribution margin is the amount remaining from sales revenue after variable expenses have been deducted. It contributes towards covering fixed costs and then towards profit.

2. Unit Contribution Margin

The unit contribution margin can be used to predict changes in total contribution margin as a result of changes in the unit sales of a product. To do this, the unit contribution margin is simply multiplied by the change in unit sales. Assuming no change in fixed costs, the change in total contribution margin falls directly to the bottom line as a change in profits.

3. Contribution Margin Ratio

The contribution margin (CM) ratio is the ratio of the contribution margin to total sales. It shows how the contribution margin is affected by a given change in total sales. The contribution margin ratio is often easier to work with than the unit contribution margin, particularly when a company has many products. This is because the contribution margin ratio is denominated in sales, which is a convenient way to express activity in multi-product firms.

Objectives

The main objectives of cost-volume-profit analysis are given below :

- (i) The CVP analysis may be used in determining the break-even-point.
- (ii) Fixation of selling prices.
- (iii) Selecting the suitable product/sales mix.

- (iv) Profit planning and maintaining a desired level of profit.
- (v) Determining the optimum level of activity.
- (vi) Evaluating the performance.
- (vii) Taking many other decisions involving alternative choices such as make or buy decision, accept or reject decisions etc.

Q2. What are the Assumptions and Limitations of CVP Analysis?

Ans :

(Jan.-20)

Assumptions

CVP analysis is based on the following assumptions :

1. All costs are either fixed or variable
2. Semi-variable costs are not considered to exist
3. Fixed costs remain fixed over a period of time
4. Variable cost per unit remain constant
5. All costs and revenues are linear
6. Technology of production and productive efficiency remain unchanged.
7. The firm produces one product or a constant product wide

Limitations

CVP analysis is subject to following limitations :

1. It considers output as the only factor affecting costs but in reality costs are affected by inflation, efficiency and economic and political factors.
2. All costs cannot be segregated into fixed and variable cost which is a pre-requisite for CVP analysis.
3. Total fixed costs do not remain constant beyond certain ranges of activity levels but increase in a step like fashion.
4. CVP analysis assumes a particular sales mix to be constant but in reality sale mix changes with the change in demand.
5. It assumes that costs and sales can be predicted with certainty. However these variables are uncertain.

Q3. Explain the term break-even point. How it is determined.

Ans :

(Jan.-19)

The break-even point may be defined as that point of sales volume at which total revenue is equal to total cost. It is a point of no profit, no loss. A business is said to break-even when its total sales are equal to its total costs. At this point contribution i.e., sales minus variable cost, equals the fixed costs. If production/ sales is increased beyond this level, there shall be profit to the organization and if it is decrease from this level, there shall be a loss to the organization.

Break-even point can be stated in the form of an equation,

Sales revenue at break-even point = Fixed costs + Variable costs.

Computation of the Break-even Point

The break-even point can be computed by the following methods,

- (i) Algebraic formula method
- (ii) Graphic or chart method.

(i) Algebraic Formula

The break-even point can be computed in terms of,

- (a) Units i.e., quantity
- (b) Money Value i.e., in rupees
- (c) As a percentage of estimated capacity.

(a) Break-even Point in Units

As the break-even point is the point of no profit no loss, it is that level of output at which the total contribution equals the total fixed costs. It can be calculated as follows,

$$\text{Break-even Point} = \frac{\text{Fixed Cost}}{\text{Selling Price per unit} - \text{Variable Cost per unit}}$$

(b) Break-even Point in Terms of Money Value

$$\begin{aligned} &= \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}} \times \text{Sales} \\ &= \frac{\text{Fixed Cost}}{\text{Contribution}} \times \text{Sales} \\ &= \frac{\text{Fixed Cost}}{\text{P/V Ratio}} \end{aligned}$$

(c) Break-even Point as a Percentage of Estimated Capacity

Break-even point can also be computed as a percentage of the estimated sales or capacity by dividing the break-even sales by the capacity sales. For example, if a firm has an estimated capacity of 1,00,000 units of products and its break-even point is reached at 50,000 units, then the break-even point is at 50% of capacity (1,00,000/50,000). If information as to total contribution at full capacity is available, the break-even point as a percentage of estimated capacity can be found as under,

$$\text{B.E.P (As \% age of capacity)} = \frac{\text{Fixed Cost}}{\text{Total Contribution}}$$

(ii) Break-even Chart or Graphic Method of Break-even Analysis

The break-even point can also be computed graphically. A break-even chart is a graphical representation of marginal costing. The break-even chart, 'Portrays a pictorial view of the relationships between costs, volume and profits', it shows the break-even point and also indicates the estimated profit or loss at various levels of output. The break-even point as indicated in the chart is the point at which the total cost line and the total sales line intersect.

There are three methods of drawing a break-even chart. These methods of drawing break-even chart have been explained with the help of the following illustration.

Output Units	Variable per Unit `	Total Variable Cost `	Fixed Expenses `	Total Cost `	Selling Price per unit	Total Sales `
0	5	0	75,000	75,000	10	0
5,000	5	25,000	75,000	1,00,000	10	50,000
10,000	5	50,000	75,000	1,25,000	10	1,00,000
15,000	5	75,000	75,000	1,50,000	10	1,50,000
20,000	5	1,00,000	75,000	1,75,000	10	2,00,000
25,000	5	1,25,000	75,000	2,00,000	10	2,50,000
30,000	5	1,50,000	75,000	2,25,000	10	3,00,000

First Method

Under this method following steps are taken to draw the break-even chart,

1. Volume of production/output or sales is plotted on horizontal axis i.e., X-axis. The volume of sales or production may be expressed in terms of rupees, units or as a percentage of capacity.
2. Cost and sales revenue are represented on vertical axis i.e., Y-axis.
3. Fixed cost line is drawn parallel to X-axis. The line indicates that fixed expenses remain constant at all levels of activity.
4. The variable costs for different levels of activity are plotted over-the fixed cost line. The variable cost line is joined to fixed cost line at zero level of activity. As the variable cost line is drawn above the fixed cost line, it represents the total cost at various levels of output/sales.
5. Sales values at various levels of output are plotted and a line is drawn joining these plotted points. The line is called the sales (revenue) line.
6. The point of intersection of total cost line and sales (revenue) line is called the break-even point.
7. The number units to be produced at break-even point can be determined by drawing a perpendicular to the X-axis from the point of intersection of cost and sales line.
8. The sales revenue at break-even point can be determined by drawing a perpendicular to the X-axis from the point of intersection of cost and sales line.
9. The area below the break-even point represents the loss area as the total sales and less than the total cost and the area above the break-even point indicates the area of profit as the sales revenue exceeds the total cost.

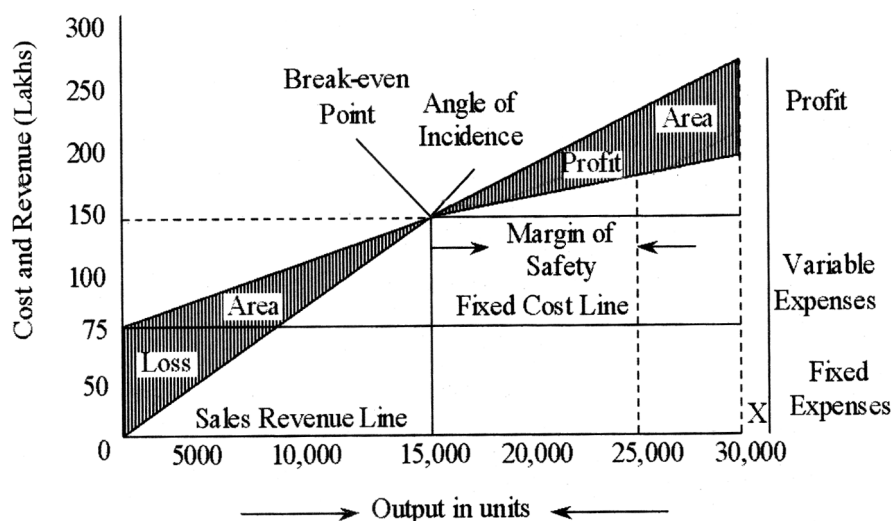


Fig. : Break-even Chart

5.1.1 Concept of contribution and P/V Ratio Margin of Safety

Q4. What is contribution?

Ans :

Contribution is the difference between sales and variable cost or marginal cost of sales. It may also be defined as the excess of selling price over variable cost per unit. Contribution is also known as Contribution Margin or Gross Margin. Contribution being the excess of sales over variable cost is the amount that is contributed towards fixed expenses and profit.

If the selling price of a product is Rs. 20/- per unit and its variable cost is Rs. 15/- per unit, contribution per unit is Rs. 5/- (i.e., Rs. 20 – 15). Further, let us say that the fixed expenses are 50,000 and the total number of units sold is 8,000. This means that the total contribution is 8000×5 or Rs. 40,000 which is not sufficient even to meet the fixed expenses and the result is a loss of Rs. 10,000 ($50,000 - 40,000$). In case, the output is 10,000 units, then total contribution of 50,000 equals the fixed cost, and no amount is left for profit. The profit can be earned only when the amount of contribution exceeds the fixed costs. Hence, any output beyond 10,000 units, will give some profit e.g., at a level of output of 15,000 units, the total contribution is $15,000 \times 5 = 75,000$ while the fixed costs remain 50,000, thus making a profit of 25,000. Contribution can be represented as :

$$\text{Contribution} = \text{Sales} - \text{Variable (Marginal) Cost}$$

$$\text{or Contribution (per unit)} = \text{Selling Price} - \text{Variable (or marginal) cost per unit}$$

$$\text{or Contribution} = \text{Fixed Costs} + \text{Profit (—Loss)}$$

Advantages of Contribution

The concept of contribution is a valuable aid to management in making managerial decisions. A few benefits resulting from the concept of contribution margin are given below :

1. It helps the management in the fixation of selling prices.
2. It assists in determining the break-even point.
3. It helps management in the selection of a suitable product mix for profit maximization.

4. It helps in choosing from among alternative methods of production ; the method which gives highest contribution per limiting factor is adopted.
5. It helps the management in deciding whether to purchase or manufacture a product or a component.
6. It helps in taking a decision as regards to adding a new product in the market.

Q5. What is P/V ratio?

Ans :

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

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

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

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

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

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

This ratio can also be shown in the form of percentage by multiplying by 100. Thus, if selling price of a product is Rs. 20 and variable cost is Rs. 15 per unit, then

$$\text{P/V Ratio} = \frac{20 - 15}{20} \times 100 = \frac{5}{20} \times 100 = 25\%$$

The P/V ratio, which establishes the relationship between contribution and sales is of vital importance for studying the profitability of operations of a business. It reveals the effect on profit of changes in the volume. In the above example, for every Rs. 100 sales, Contribution of Rs. 25 is made towards meeting the fixed expenses and then the profit comparison for P/V ratios can be made to find out which product, department or process is more profitable. Higher the P/V ratio, more will be the profit and lower the P/V ratio, lesser will be the profit. Thus, every management aims at increasing the P/V ratio.

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

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

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

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

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

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

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

Significance of P/V Ratio

P/V Ratio indicates rate of profitability associated with growth in sales value. A high P/V ratio suggests that with the increase in Sales, Profits will increase at higher rate, assuming that there is no increase in fixed cost. In such cases, a firm would reap more profits by spending on Advertisements and other sale promotion campaigns to boost sales.

In periods of depression, a high P/V ratio suggests that a producer can reduce his price without incurring much losses.

Given the fixed cost a higher P/V Ratio results in lower BEP and hence lower risk. Low P/V ratio leads to high BEP and high risk.

Factors to be considered to improve P/V Ratio

A high P/V Ratio is an indicator of sound financial performance of a company's product. P/V ratio can be improved, if contribution is increased and in order to increase the contribution the following factors have to be considered.

- Increase in sale prices through sales promotion, product improvement etc.
- Reduction in variable cost per unit.
- Concentration on Sales of products with relatively better PV ratio.

P/V Ratio and Desired Profits

Using P/V ratio the sales value to earn the desired profit can be calculated by the formula.

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

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

$$\text{Or Fixed Cost} - \text{Actual Sale} \times \text{P/V Ratio} - \text{Profit}$$

$$\text{Profit} = \text{Actual Sale} \times \text{P/V Ratio} - \text{Fixed Cost.}$$

Q6. What is margin of safety?

Ans :

The excess of actual or budgeted sales over the break-even sales is known as the margin of safety. It is the difference between actual sales and break-even sales. It represents the amount by which sales revenue can fall before a loss is incurred. As at break-even point there is no profit no loss, sales beyond the break-even point represent margin of safety because any sales above the break-even point will give some profit. Margin of safety can be calculated with the help of the following formulas, Margin of safety = Actual sales - Break-even sales.

PROBLEMS

1. From the following particulars, calculate BEP.

Rs.

Sales : 2,00,000

Variable cost : 1,20,000

Fixed cost : 30,000

Also, calculate

- (a) New BEP, if selling price is reduced by 10%
 (b) New BEP, if variable cost is increased by 10%
 (c) New BEP, if fixed cost is increased by 10%.

Sol :

(Feb.-17)

$$\text{BEP (RS.)} = \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

If selling price reduced by 10%

Sales = 2,00,000 – 10% of 2,00,000 – 1,80,000

$$\begin{aligned} \text{P/V ratio} &= \frac{\text{Contribution}}{\text{Sales}} \times 100 \\ &= \frac{1,80,000 - 1,20,000}{1,80,000} \times 100 \end{aligned}$$

$$\text{P/V ratio} = 33\%$$

$$\text{BEP (Rs.)} = \frac{30,000}{0.33} = \text{Rs. } 90,909$$

If variable cost increased by 10%

Variable cost = 1,20,000 + 10% of 1,20,000

= 1,32,000

$$\text{P/V ratio} = \frac{2,00,000 - 1,32,000}{2,00,000} \times 100 = 34\%$$

$$\text{BEP (Rs.)} = \frac{30,000}{0.34} = \text{Rs. } 88,235$$

If fixed cost increased by 10%

Fixed cost = 30,000 + 10% of 30,000

= 33,000

$$P/V \text{ ratio} = \frac{2,00,000 - 1,20,000}{2,00,000} \times 100$$

$$= \frac{80,000}{2,00,000} \times 100$$

$$P/V \text{ ratio} = 40\%$$

$$\text{BEP (Rs.)} = \frac{33,000}{0.4} = \text{Rs. } 82,500$$

2. From the following particulars, calculate BEP.

Sales ` 4,00,000

Variable Cost ` 2,40,000

Fixed costs ` 60,000

You are required to calculate the following :

- (a) New BEP of sales is reduced by 5%.**
- (b) New BEP of variable cost is increased by 9%.**
- (c) New BEP of fixed cost is increased by 5%.**

Sol :

(Aug.-18)

Given,

Sales = ` 4,00,000

Variable Cost = ` 2,40,000

Fixed Cost = ` 60,000

Calculation on BEP

$$\begin{aligned} \text{BEP (Sales)} &= \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}} \times \text{Sales} \\ &= \frac{\text{` } 60,000}{\text{` } 4,00,000 - \text{` } 2,40,000} \times \text{` } 4,00,000 \\ &= \frac{\text{` } 60,000}{\text{` } 1,60,000} \times \text{` } 4,00,000 \\ &= 0.375 \times \text{` } 4,00,000 \end{aligned}$$

$$\therefore \text{BEP (Sales)} = \text{` } 1,50,000$$

(a) New BEP, if Sales in Reduced by 5%

Sales = ` 4,00,000

$$= \text{` } 4,00,000 + 5\%$$

$$= ₹ 4,00,000 \times \frac{5}{100}$$

$$= ₹ 4,00,000 - ₹ 20,000$$

$$\therefore \text{Sales} = ₹ 3,80,000$$

$$\text{BEP (Sales)} = \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}}$$

$$= \frac{₹ 60,000}{₹ 3,80,000 - ₹ 2,40,000} \times ₹ 3,80,000$$

$$= \frac{₹ 60,000}{₹ 1,40,000} \times ₹ 3,80,000$$

$$= 0.428 \times ₹ 3,80,000$$

$$\therefore \text{BEP (Sales)} = ₹ 3,80,000$$

(b) New BEP, if Variable Cost is increased by 5%

$$\text{Variable Cost} = ₹ 2,40,000$$

$$= ₹ 2,40,000 + 5\%$$

$$= ₹ 2,40,000 \times \frac{5}{100} = ₹ 12,000$$

$$= ₹ 2,40,000 + ₹ 12,000$$

$$\therefore \text{Variable Cost} = ₹ 2,52,000$$

$$\text{BEP (Sales)} = \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}} \times \text{Sales}$$

$$= \frac{₹ 60,000}{₹ 4,00,000 - ₹ 2,52,000} \times ₹ 4,00,000$$

$$= \frac{₹ 60,000}{₹ 1,48,000} \times ₹ 4,00,000$$

$$= 0.405 \times ₹ 4,00,000$$

$$\therefore \text{BEP (Sales)} = ₹ 1,62,000$$

(c) New BEP, if Fixed Cost is increased by 5%

$$\text{Fixed Cost} = ₹ 60,000$$

$$= ₹ 60,000 + 5\%$$

$$= ₹ 60,000 \times \frac{5}{100} = ₹ 3,000$$

$$= ₹ 60,000 + ₹ 3,000$$

$$\therefore \text{Fixed Cost} = ₹ 63,000$$

$$\begin{aligned}
 \text{BEP (Sales)} &= \frac{\text{Fixed Cost}}{\text{Sales} - \text{Variable Cost}} \times \text{Sales} \\
 &= \frac{\text{₹ } 63,000}{\text{₹ } 4,00,000 - \text{₹ } 2,40,000} \times \text{₹ } 4,00,000 \\
 &= \frac{\text{₹ } 63,000}{\text{₹ } 1,60,000} \times \text{₹ } 4,00,000 \\
 &= 0.394 \times \text{₹ } 4,00,000
 \end{aligned}$$

$$\therefore \text{BEP (Sales)} = \text{₹ } 1,52,600$$

3. You are given the following data for the year 2016 of XYZ Ltd.

	(₹)	%
Variable costs	6,00,000	60
Fixed costs	3,00,000	10
Net Profit	1,00,000	10
	10,00,000	100

Find out breakeven point, P.V. Ratio and margin of safety ratio.

Sol :

(Jan.-18)

Given,

$$\text{Variable costs} = 6,00,000$$

$$\text{Fixed costs} = 3,00,000$$

$$\text{Net Profit} = 1,00,000$$

$$\text{Sales} = 10,00,000$$

Calculation of P/V Ratio

Sales – Variable Costs

$$\text{P.V. Ratio} = \frac{\text{Sales} - \text{Variable Costs}}{\text{Sales}} = \frac{10,00,000 - 6,00,000}{10,00,000}$$

$$\therefore \text{P.V. Ratio} = 0.4 \text{ (or) } 40\%$$

Calculation of Break-Even Point

$$\text{Break-Even Point} = \frac{\text{Fixed Costs}}{\text{Sales per unit} - \text{Break-Even Point}} = \times 100$$

$$= \frac{3,00,000}{100 - 60} \times 100 = \frac{3,00,000}{40} \times 100$$

$$= 7,500 \times 100$$

$$\therefore \text{BEP} = \text{₹ } 7,50,000$$

Calculation of Margin of Safety Ratio

$$\text{Margin of Safety Ratio} = \frac{\text{Margin of Safety in Rupees}}{\text{Actual Sales}}$$

$$\begin{aligned}\text{Margin of Safety} &= \text{Actual Sales} - \text{BEP Sales} \\ &= ₹ 10,00,000 - 7,50,000\end{aligned}$$

$$\begin{aligned}\therefore \text{Margin of Safety} &= ₹ 2,50,000 \\ &= \frac{2,50,000}{10,00,000}\end{aligned}$$

$$\therefore \text{Margin of Safety Ratio} = 0.25 \text{ (or) } 25\%$$

4. An analysis of cost sheet is as follows:

Cost Element	Variable Cost (% of Sales)	Fixed Cost (₹)
Direct material	32.8	—
Direct Labour	28.4	—
Factory overheads	12.6	1,89,900
Distribution overheads	4.1	58,400
General overheads	1.1	66,780

Budgeted Sales ₹ 18,50,000

You are required to determine:

- (i) Break even sales value
- (ii) Profit at budgeted sales
- (iii) Profit if actual sales are drop by 10% and increase by 5% from budgeted sales.

Sol :

(Jan.-20)

(i) Calculation of Break Even Sales Value

$$\begin{aligned}\text{Break-even point} &= \frac{\text{Fixed Cost}}{\text{P/V Ratio}} \\ &= \frac{3,15,080}{21} \times 100 \\ &= 15,00,380.95\end{aligned}$$

$$\text{Break Even Sales Value} = ₹ 15,00,380.95$$

(ii) Calculation of Profit at Budgeted Sales of ₹ 18,50,000

$$\begin{aligned}\text{Profit} &= \text{Sales} \times \text{P/v Ratio} - \text{Fixed Cost} \\ &= [18,50,000 \times 21\%] - 3,15,080\end{aligned}$$

$$\begin{aligned}
 &= \left[18,50,000 \times \frac{21}{100} \right] - 3,15,080 \\
 &= 3,88,500 - 3,15,000 \\
 &= ₹ 73,420
 \end{aligned}$$

(iii) (a) Profit when Actual Sales are Dropped by 10%

$$\begin{aligned}
 \text{Actual Sales} &= 18,50,000 - \left[\frac{10}{100} \times 18,50,000 \right] \\
 &= 18,50,000 - 1,85,000 = 16,65,000 \\
 \text{Profit} &= \text{Sales} \times \text{P/V Ratio} - \text{Fixed Cost} \\
 \text{Profit} &= \left[16,65,000 \times \frac{71}{100} \right] - 3,15,000 \\
 &= 3,49,650 - 3,15,080 = 34,570
 \end{aligned}$$

(b) Profit when Actual Sales are Increased by 5%

$$\begin{aligned}
 \text{Actual Sales} &= 18,50,000 + \left[\frac{5}{100} \times 18,50,000 \right] \\
 &= 18,50,000 + 92,500 \\
 &= 19,42,500 \\
 \text{Profit} &= \text{Sales} \times \text{P/V Ratio} - \text{Fixed Cost} \\
 \text{Profit} &= \left[19,42,500 \times \frac{71}{100} \right] - 3,15,080 \\
 &= 4,07,925 - 3,15,080 \\
 &= ₹ 92,845
 \end{aligned}$$

Working Notes**(a) Calculation of Variable Cost**

Particulars	% of Sales
Direct Material	32.80
Direct Labour	28.40
Factory Overhead	12.60
Distribution Overheads	4.10
General Overheads	1.10
Total Variable Cost	79%

Note : Assuming sales at 100%

Particulars	Amount (₹)
Factory Overheads	1,89,900
Distribution Overheads	58,400
General Overheads	66,780
Total Fixed Cost	<u>3,15,080</u>

$$\begin{aligned} \text{P/V Ratio} &= \frac{\text{Contribution}}{\text{Sales}} \times 100 \\ \text{Contribution} &= \text{Sales} - \text{Variable Cost} \\ \text{Contribution} &= 100 - 79 \\ \text{Contribution} &= 21 \\ \text{P/V Ratio} &= \frac{21}{100} \times 100 \\ &= 21\% \end{aligned}$$

(i) Contribution per unit

(ii) BEP

(iii) Margin of safety

(iv) Profit

(v) Volume of sales to earn a profit of ` 24,000

Units sold	20,000
Total sales	` 60,000
Total variable cost	` 30,000
Total Fixed cost	` 18,000

(Jan.-19)

Number of units sold = 20,000 units
Total sales = ` 60,000
Total variable cost = ` 30,000
Total fixed cost = ` 18,000

$$\text{Cost per unit} = \frac{\text{Total sales}}{\text{No. of units sold}} = \frac{60,000}{20,000}$$

$\therefore$ Cost per unit = ₹ 3 per unit.

(i) Contribution per unit

$$= (\text{Sales} - \text{Variable Cost}) \div \text{Number of Units Sold}$$

$$= \frac{60,000 - 30,000}{20,000}$$

$$= \frac{30,000}{20,000}$$

$$\therefore \text{Contribution per unit} = ₹ 1.50 / \text{unit}$$

(ii) Break - Even Point (BEP)

$$\text{P/v ratio} = \frac{\text{Contribution}}{\text{Sales}}$$

$$\text{Total Contribution} = \text{Sales} - \text{Variable Cost}$$

$$= 60,000 - 30,000$$

$$\therefore \text{Total Contribution} = 30,000$$

$$\text{P/v ratio} = \frac{30,000}{60,000} \times 100$$

$$\therefore \text{P/v ratio} = 50\%$$

$$\text{BEP} = \frac{\text{Fixed Costs}}{\text{P / v Ratio}}$$

$$= \frac{18,000}{50\%}$$

$$\therefore \text{BEP (₹)} = ₹ 36,000$$

$$\text{BEP in unit} = \frac{\text{Fixed Cost}}{\text{Contribution per unit}} = \frac{18,000}{1.5}$$

$$\therefore \text{BEP in unit} = 12 \text{ units}$$

(iii) Margin of Safety

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

$$= 20,000 - 12,000$$

$$\therefore \text{Margin of Safety} = 8,000 \text{ units.}$$

(iv) Profit

$$\text{Profit} = \text{Contribution} - \text{Fixed Cost}$$

$$= 30,000 - 18,000$$

$$\therefore \text{Profit} = ₹ 12,000$$

(v) Volume of sales to earn a profit of ₹ 24,000

$$\begin{aligned}\text{Sales} &= \frac{\text{Fixed Cost} + \text{Desired Profit}}{\text{P/V Ratio}} \\ &= \frac{18,000 + 24,000}{0.5} = ₹ 84,000\end{aligned}$$

$$\begin{aligned}\text{Sales in unit} &= \frac{\text{Sales (in ₹)}}{\text{cost per unit}} \\ &= \frac{₹ 84,000}{3} = 28,000 \text{ units}\end{aligned}$$

∴ Desired profit of 24,000 can be attained at a sales volume of 28,000 units.

6. The sales and profit for 2016 and 2017 are as follows:

Year	Sales	Profit
2016	1,50,000	20,000
2017	1,70,000	125,000

Find out:

- (a) P/V Ratio
- (b) BEP
- (c) Sales for a profit of ₹ 40,000
- (d) Profit for sales of ₹ 2,50,000 and
- (e) MOS at a profit of ₹ 50,000.

Sol :

(Nov.-20)

Given that,

Year	Sales (₹)	Profit (₹)
2016	1,50,000	20,000
2017	1,70,000	125,000

(a) Calculation of P/v Ratio

It is calculated by using the formula:

$$\text{P/V Ratio} = \frac{\text{Difference in profits}}{\text{Difference in sales}} \times 100$$

$$\text{Difference in profits} = 25,000 - 20,000 = 5000$$

$$\text{Difference in sales} = 1,70,000 - 1,50,000 = 20,000$$

$$\begin{aligned}\text{P/V Ratio} &= \frac{5,000}{20,000} \times 100 \\ &= 0.25 \times 100 = 25\%\end{aligned}$$

(b) Calculation of Break Even Point (BEP)

$$\text{BEP} = \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

$$\text{Fixed cost} = (\text{Sales} \times \text{P/V ratio}) - \text{Profit}$$

$$\text{Fixed cost} = \left(1,50,000 \times \frac{25}{100} \right) - 20,000$$

$$\text{Fixed cost} = 37,500 - 20,000 = 17,500$$

$$\text{BEP} = \frac{17,500}{25\%}$$

$$= \frac{17,500}{0.25}$$

$$= 70,000$$

(c) Calculation of Sales Required to earn a Profit of ` 40,000

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

$$\text{Sales} = \frac{17,500 + 40,000}{25\%} = \frac{57,500}{0.25} = 2,30,000$$

(d) Calculation of Profit for Sales of ` 2,50,000

$$\text{Profit} = \text{Contribution} - \text{Fixed Cost}$$

(or)

$$\text{Profit} = (\text{Sales} \times \text{P/V ratio}) - \text{Fixed cost}$$

$$\text{Sales} = 2,50,000 \text{ (Given)}$$

$$\text{Profit} = \left(2,50,000 \times \frac{25}{100} \right) - 17,500$$

$$\text{Profit} = 62,500 - 17,500 = 45,000$$

(e) Calculation of Margin of Safety (MOS) at a Profit of ` 50,000

$$\text{Margin of Safety (MOS)} = \frac{\text{Profit}}{\text{P/V Ratio}}$$

$$\text{MOS} = \frac{50,000}{25\%} = \frac{50,000}{0.25} = ` 2,00,000$$

7. Direct materials per unit Rs. 150
 Direct labour per unit Rs. 100
 Variable factory overhead per unit Rs. 20
 Selling price per unit is Rs. 500
 Variance selling expenses is Rs. 20 per unit and
 Fixed selling and administrative expenses are Rs. 30,000
Required
 (i) Calculate the total variable cost per unit
 (ii) Calculate the total fixed expenses for the year
 (iii) Calculate the margin of safety.

Sol :

(Feb.-17)

Total variable cost per unit = 150 + 100 + 20 + 20 = Rs. 290

Total fixed expenses = 15,000 + 30,000 = 45,000

Margin of safety = $\frac{\text{Profit}}{\text{P/V ratio}}$

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

Contribution per unit = S.P.U – V.C.P.U
 = 500 – 290

Contribution per unit = Rs. 210

$\text{P/V Ratio} = \frac{210}{500} \times 100 = 42\%$

Calculation of Profit :

Sales – Variable Cost = Fixed Cost + Profit

$\text{BEP (Units)} = \frac{\text{Fixed Cost}}{\text{Contribution per unit}} = \frac{45,000}{210} = 214 \text{ units}$

BEP (Units) = 214 units

BEP (Sales in Rs.) = 214 × 500 = Rs. 1,07,000

Variable cost = 290 × 214 = 62,060

1,07,000 – 62,060 = 45,000 + Profit

44,940 = 45,000 + Profit

Profit = 45,000 – 44,940

Profit = Rs. 60

$\text{Margin of safety} = \frac{60}{0.42} = 143$

8. From the following details find out:

(i) Contribution per unit	(ii) BEP
(iii) Margin of safety	(iv) Profit
(v) Volume of sales to earn a profit of Rs.24000.	
Total Fixed cost	Rs. 18,000
Total Variable cost	Rs. 30,000
Total Sales	Rs. 60,000
Units sold	Rs. 20,000

Sol :

(Aug.-21)

(i) Calculation of Contribution

$$= \text{Sales} - \text{Variable Cost}$$

$$= 60,000 - 30,000 = 30,000$$

Contribution per unit

$$= \frac{30,000}{20,000} = 1.50$$

(ii) Calculation of Break-Even Point (BEP)

$$\text{BEP in rupees} = \frac{\text{Fixed Cost}}{\text{Contribution per unit}}$$

$$= \frac{18,000}{1.5} = 12,000 \text{ units}$$

(iii) Calculation of Margin of Safety

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

$$= 60,000 - 36,000 = ₹ 24,000$$

(iv) Calculation of Profit

$$\text{Profit} = \text{Contribution} - \text{Fixed Cost}$$

$$= 30,000 - 18,000 = ₹ 12,000$$

(v) Calculation of Volume of Sales to Earn a Profit of ₹ 24,000

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

$$\text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100 = \frac{30,000}{60,000} \times 100 = 50\%$$

$$\text{Sales at Desired Profit} = \frac{18,000 + 24,000}{50\%}$$

$$\frac{42,000}{50} \times 100 = ₹ 84,000$$

5.2 MANAGERIAL USES OF BREAK-EVEN CONCEPT**Q7. Explain merits and demerits of breakeven analysis.****(OR)****Explain the uses of breakeven concept.****Ans :****(Jan.-19, June-18)****Merits**

1. To forecast profit accurately, it is absolutely essential to determine the relationship between costs and profits on one hand and on volume and profit on the other hand. It aims at measuring variations in cost with volume. Profit planning considers the projected level of output, optimum product combination, estimated revenue, total cost of production and is thus based on break even analysis.
2. Break-even analysis is used in setting up flexible budgets which show costs at various levels of activities.
3. Break-even analysis helps management in the evaluation of performances for control purposes.
4. Break-even analysis may be helpful in formulating pricing policies by projecting the effect that various price structures have on costs and profits, especially when the demand for the product is elastic.
5. Break-even analysis helps to ascertain the amount of overhead costs that could be charged to product costs at different levels of operation.
6. It helps in making short-run tactical decisions, e.g., shift working, acceptance of special order, choice of sales-mix, etc.

Demerits

1. Break-Even analysis can sometimes gives misleading results of production capacity changes.
2. All costs cannot be easily and accurately segregated into fixed and variable components.
3. Total fixed costs do not remain fixed beyond certain ranges of activity levels.
4. When a firm sells more than one product the sales mix changes continuously due to changes in demand. Moreover, it becomes difficult to forecast accurately the volume of sales mix which would yield maximum profit.
5. Sometimes changes in opening and closing stocks may be significant.
6. If selling prices and factor prices (e.g., material prices, wage rates) change, then break-even relationship is affected.

5.2.1 Product mix**Q8. What is product mix? How marginal costing helps a manager in determination of most profitable product mix****Ans :**

The Product Mix refers to the total products offered by an organization. A product line is a group of products within the product mix that can be classified together on account of criteria like customer needs, market served, channel used or technology employed.

Determination/Selection of Profitable Product Mix

Suitable product mix highlights the ratio of different products which are being produced and sold by the firms in order to gain maximum profits. Product mix helps in providing information regarding

different products and product lines of a firm. Consistency is one of the most important characteristic of a product mix which would determine the nature of product line. A consistent product mix would advise the firm to produce similar product line whereas inconsistent product mix would result in producing/ offering the diversified product lines.

Decisions regarding product mix are quite important in the firms which are engaged in producing multiple products. One needs to be very careful while taking decisions regarding suitable product mix that leads to maximum profitability. Thus, management must make use of marginal costing technique in order to serve the purpose of taking decisions with respect to determination of most profitable product mix by comparing profitability or contribution of various products of the firm. Marginal costing also takes into consideration the limiting factors in terms of their contribution/unit while taking decisions regarding the suitable product mix.

Following are the two conditions in which product mix decisions are being made,

- (i) If there exists any limiting factor or any change in the fixed costs, then the most profitable product mix would be determined by comparing the relative profitability of different products in a product line.
- (ii) In case of absence of key factor and constant fixed costs, the most profitable product mix would be determined on the basis of the contribution/unit of each product.

The product mix which gives highest contribution/profitability would be retained and the management has to emphasize on increasing the production of that product mix. Whereas, if the product mix gives negative contribution or profitability that will be dropped out or discontinued.

The management must take into consideration the following factors while taking decisions with respect to the suitable product mix of a firm,

- (a) The effect on raw materials resulting in making adjustment in the purchase programme
- (b) Changes in the labour
- (c) Changes in equipment load
- (d) Locational factors
- (e) Fluctuations in sales programmes.

PROBLEMS

9. A company manufactures and markets three products X, Y and Z. All the three products are from the same set of machines. Production is limited by machine capacity. From the data below, indicate priorities for products, X, Y and Z with a view to maximizing profits:

Particulars	Products		
	X (₹)	Y (₹)	Z (₹)
Raw Material Cost Per Unit	11.25	16.25	21.25
Direct Labour Cost Per Unit	2.50	2.50	2.50
Other Variable Cost Per Unit	1.50	2.25	3.55
Selling Price Per Unit	25.00	30.00	35.00
Standard Machine Time Required Per Unit in Minutes	39	20	28

Sol :

Statement showing the contribution and ranking of the product

Particulars	Products		
	X (₹)	Y (₹)	Z (₹)
Selling Price Per Unit	25.00	30.00	35.00
Less: Variable Cost Per Unit	15.25	21	27.30
Contribution Per Unit (1-2)	9.75	9	7.70
Standard Machine Time Required Per Unit in Minutes	39	20	28
Contribution Per Minute (C/D)	0.25	0.45	0.275
Ranking	III	I	II

Working Note :

Calculation of variable cost per unit:

Particulars	Products		
	X (₹)	Y (₹)	Z (₹)
Raw Material Cost	11.25	16.25	21.25
Direct Labour Cost	2.50	2.50	2.50
Other Variable Cost	1.50	2.25	3.55
Total Variable Cost Per Unit	15.25	21.00	27.30

10. Taurus Ltd. Produce three products - A, B and C, from the same manufacturing facilities. The cost and other details of the three products are as follows:

Particulars	A	B	C
Selling price/unit (₹)	200	160	100
Variable cost/unit (₹)	120	120	40
Fixed expenses/month (₹) 2,76,000			
Maximum production per month (units)	5,000	8,000	6,000
Total hours available for the 200 hours month			
Maximum demand per month (units)	2,000	4,000	2,400

The processing hours cannot be increased beyond 200 hours per month.

You are required to:

1. Compute the most profitable product mix;
2. Compute the overall break-even sales of the company for the month based on the mix calculated in 1 above.

Sol :

Product	A (₹)	B (₹)	C (₹)
Selling Price per unit	200	160	100
Variable cost per unit	120	120	40
Contribution per unit (1)	80	40	60
Maximum production per hour in units (2)	25 i.e., 5,000/200	40 i.e., 8,000/200	30 i.e., 6,000/200
Contribution per hour (1 × 2)	₹ 2,000	₹ 1,600	₹ 1,800
Ranking	I	III	II

Units to be produced keeping demand in view:

1. First maximum no. on A should be produced, i.e., 2,000 units, which will utilize 80 hours, i.e., $2,000 \div 25$ leaving a balance of 120 hours, i.e., 200 hours – 80 hours yet to be utilized.
2. Maximum number of C should be produced, i.e., 2,400 units, which will utilize 80 hours, i.e., $2,400 \div 30$ leaving a balance of 40 hours still to be used.
3. These 40 hours should be used for production of B and in this period. 1,600 units of C, i.e., 40×40 will be produced.

1. Optimum Product Mix and its Contribution

	Units	Contribution per Unit	Total Contribution
A	2,000	₹ 80	1,60,000
B	1,600	40	64,000
C	2,400	60	1,44,000
Total			3,68,000
Less: Fixed Expenses			2,76,000
Profit			92,000

2. Overall Break-Even point of company for the month based on the mix calculated in (1) above
 $BES \times P/V \text{ Ratio} = \text{Fixed cost or } BES \times (3,68,000 \div 8,96,000) = ₹ 2,76,000 \text{ or } BES = ₹ 6,72,000$

Total Sales

	Units	S. P. per Unit	Total Sales
A	2,000	200	₹ 4,00,000
B	1,600	160	₹ 2,56,000
C	2,400	100	₹ 2,40,000
			8,96,000

11. From the following data, which product would you recommend to be manufactured in a factory time being the key factor?

Particulars	Per unit of product - A	Per unit of product - B
Direct material	Rs. 24	Rs. 14
Direct labour at Re 1 per hour	2	3
Variable overheads at Rs.2 per hour	4	6
Selling price	Rs. 100	110
Standard time to produce	2 Hours	3 Hours

Sol :

(Aug.-21)

Statement Showing Contribution from Product 'A'

Particulars	Product A (₹)	
Selling Price		100
Less: Variable Costs:		
Direct Material	24	
Direct Labour @ 1 per hour	2	
Variable Overheads @ ₹ 2 per hour	4	30
Contribution per Unit (I)		70
Standard time to Produce (II)		2
Contribution per Hour (I ÷ II)		$\frac{70}{2} = 35$

Statement Showing Contribution from Product 'B'

Particulars	Product B (₹)	
Selling Price		110
Less: Variable Costs:		
Direct Material	14	
Direct Labour @ 1 per hour	3	
Variable Overheads @ ₹ 2 per hour	6	23
Contribution per Unit (I)		87
Standard time to Produce (II)		3
Contribution per Hour (I ÷ II)		$\frac{87}{3} = 29$

5.2.2 Make or Buy Decision

Q9. What are the factors taken into consideration while deciding whether to make (or) buy?
(OR)

What is make (or) buy decisions?

Ans :

(Jan.-19, June-18)

A firm may make some products; parts or tools or some times it may buy the same thing from outside. The management must decide which is profitable. In taking such a make or buy decision marginal costing technique helps the management.

Make or buy decisions become necessary when unutilized production facilities exist and the product being produced has a component, which can either be made in the factory itself or purchased from outside market.

While deciding to make or buy, the cost comparison should be made between the marginal cost of manufacture and the price at which the product or component could be obtained from outside. It is profitable to the firm to buy the component from others only when the supplier's price is less than the marginal cost. Fixed costs are excluded on the assumption that they have been already recovered.

Factors that Influence Make or Buy Decision

In a make or buy decision, the following cost, and non-cost factors must be considered specifically.

Cost Factors

- (a) Availability of plant facility
- (b) Quality and type of item which effects the production schedule.
- (c) The space required for production of item
- (d) Any special machinery or equipment required.
- (e) Any transportation involved due to the location of the product, i.e., the "feeder point".
- (f) Cost of acquiring special know-how required for the item.

Non-Cost Factors

Among the non-cost factors specifically.

1. In favour of making, the factors like
 - (i) Secrecy of company production.
 - (ii) Idle facility available
 - (iii) Quality and stability of market supply
 - (iv) Tax considerations
 - (v) Desirability of maintaining certain facilities.
2. In favour of buying factors like
 - (i) Lack of capital required
 - (ii) Passing the know how to suppliers or not
 - (iii) Uneven production of end product
 - (iv) Wide selection.

3. Generally the following as

- (i) If quality can not be ensured in our production, the article concerned should be purchased from outside; if outside supplier can not be relied upon in this respect the article should be produced by the firm itself, whatever be the cost.
- (ii) In case there are large fluctuations in demand, it is better to purchase from outside, but if the demand is likely to increase substantially, own production may lead to lower costs latter.
- (iii) Ensure the capability and reliability of the outside suppliers to supply without any interruption. In this regard the following factors are to be considered :
 - (a) the general reputation enjoyed by supplier for reliability
 - (b) financial position and reputation
 - (c) technical know how and production facilities
 - (d) his relation with his workmen etc.
- (iv) If the business secrecy is to be maintained the manufacturing know how should not be passed on to the supplier, then it is better to produce,
- (v) The outside supplier should not be a competitor.

PROBLEMS

12. A firm can purchase a separate part from an outside source @ ₹ 11 per unit. There is a proposal that the spare part be produced in the factory itself. For this purpose a machine costing ₹ 1,00,000 with annual capacity of 20,000 units and a life of 10 years will be required. A foreman with a monthly salary of ₹ 500 will have to be engaged. Materials required will be ₹ 4.00 per unit and wages ₹ 2.00 per unit. Variable overheads are 150% of direct labour. The firm can easily raise funds @ 10% p.a. Advise the firm whether the proposal should be accepted.

Sol :

Particulars	Rs.	Rs.
Increase in Fixed Costs		
Depreciation of Machine		10,000
Salary of Foreman		6,000
Interest on Capital		10,000
		26,000
Purchase Price		11
Less Variable Cost :		
Materials	4.00	
Wages	2.00	
variable overheads (2 × 150/100)	3.00	9
Contribution per unit		2

$$\text{Minimum Volume} = \frac{\text{₹ } 26,000}{\text{₹ } 2} = 13,000 \text{ units.}$$

In order to accept the proposal it is essential that the volume should be at least 13,000 units.

If there is no idle capacity and making of the spare part in the factory involves the loss of other work, the loss of contribution arising from displacement of work should also be considered along with variable cost of production. The loss of contribution is found with reference to key or limiting factor. If the purchase price is higher than the total variable cost of production plus traceable fixed costs plus the loss of contribution of production, it will be more profitable to manufacture.

- 13. A Radio manufacturing company finds that while it costs Rs. 6.25 to make a component × 273Q. The same is available in the market at Rs. 5.75 each with an assurance of a continued supply.**

The break - down of cost is :

Material	Rs. 2.75 each
Labour	Rs. 1.75 each
Other variables	Rs. 0.50 each
Depreciation and other fixed.	
Cost	1.25 each
	6.25

(a) Should you make or buy ?

(b) What would be your decision, if the supplier offers the components at Rs. 4.85 each.

Sol :

Calculation of making cost (or) variable cost

Materials Q	Rs. 2.75 each
Labour	Rs. 1.75 each
Other variables	Rs. 0.50 each
Making cost	Rs. 5.00 each
Market price	<u>5.75 each</u>

Decision

It is advisable to make the component because making charges are less than the market price.

i.e making charges 5 – 00

market price 5 – 75

If company buy the product from out sider than, company loose Re. 0.75 per component.

(ii) If market price is 4.85

It is advisable to buy the product from outsiders if company buy the product from outsiders it can save Rs. 0.15 per component.

14. An automobile manufacturing company finds that while the cost of making in its own workshop part no 0028 is Rs. 6.00 each, the same is available in the market at Rs. 5.60 with an assurance of continuous supply. Write a report to the managing director giving your views whether to make or buy this part. Give also your views in case the suppliers reduce the price from Rs. 5.60 to Rs. 4.60. The cost data is as follows :

Particular	Rs
Material	Rs 2.00 per component
Direct labour	Rs.2.50 per component
Other variable over heads	Rs.0.50 per component
Depreciation and other fixed costs	1.00 per component
	<u>6.00</u> per component

Sol :

- (a) Calculation of variable cost (or) making charges.

Particular	Rs
Material	Rs 2.00 per component
Direct labour	Rs.2.50 per component
Other variable over heads	Rs.0.50 per component
	<u>5.00</u> per component

Making charge Rs. 5 – 00 per component

Market price Rs. 5 – 60 per component

∴ It is advisable to the company to make the product Instead of buying. If company buys the product from outsiders. It will loose Rs. 0.60 paisa per unit.

- (b) If market price reduced from 5.60 to 4.60 paisa.

If market price is reduced to 4.60. It is advisable to buy the product from outsiders instead of making. Because market price (buying) is less than the making cost.

5.2.3 Capacity utilization

Q10. Write about capacity utilization.

Ans :

Every business wants to make the best use of its available resources. They have the aim to utilize their capacity to the fullest extent possible. The capacity refers to the capability of the business to utilize its resources. It is the measurement of output with reference to the available inputs. Capacity can be enhance by making the maximum possible use of these inputs.

Better utilization of capacity means better utilization of resources. It is an important consideration for cost determination and cost reduction for cost determination and cost reduction. Thus, it is essential to establish the capacity of the plant.

The most of the business these days do not utilize 100.% capacity of production. The business may be over or under utilizing the capacity. The reasons for under utilization of capacity are lack of demand, seasonal nature of product, diseconomies of scale beyond a certain level of production, non availability of other resources of production etc.

The capacity decisions are sensitive to the business. These decide the extent of profitability in future. An optimum utilization of capacity ensures the minimum cost of production and more profitability. Thus the business should take appropriate decision to ensure the best utilization of their resources.

PROBLEMS

- 15. There are two similar plants under the same management. The management desires to merge these two plants. The following particulars are available.**

	Plant - I	Plant - II
Capacity operation	100%	60%
Sales	Rs.300 lakhs	Rs.120 lakhs
Variable costs	Rs.220 lakhs	Rs.90 lakhs
Fixed costs	Rs.40 lakhs	Rs.20 lakhs

You are required to calculate

1. What capacity of the unused plant would have to be operated for the purpose of breakeven and
2. What the profitability on working at 75% of the merged capacity would be ?

Sol :

(June.-18)

Statement Showing Merger of Plants

Particulars	Plant-I		Plant-II		Merged (Plant-I + Plant-II) (in lakhs)
	Prior (100%) (in lakhs)	Post (100%) (in lakhs)	Prior (100%) (in lakhs)	Post (100%) (in lakhs)	
A. Sales	300	300	120	200	500
B. Variables costs	220	220	90	150	370
C. Contribution (A - B)	80	80	30	50	130
D. Fixed Costs	40	40	20	20	60
E. Profit (C-D)	40	40	10	30	70

1. Calculation of Breakeven Sales of Merged Plant

$$\text{Breakeven Sales of Merged Plant} = \frac{\text{Fixed Cost of Merged Plant} \times \text{Sales of Merged Plant}}{\text{Contribution of Merged Plant}}$$

$$= \frac{60 \times 500}{130} = 230.77 \text{ (in lakhs)}$$

If 500 = 100%

230.77 = ?

= $(100/500) \times 230.77$

= 46.15%

2. Calculation of Sales @ 75% Capacity

Sales @ 75% Capacity = 500 (75/100)

= 375 (in lakhs)

∴ Profitability = $(375 \times 0.26) - 60$

= 37.5

5.2.4 Plant Shut down Decision

Q11. Explain briefly about plant shut down decisions.

Ans :

When a firm is operating for loss sometime, the management has to decide upon its shut down.

- 1. Complete Shut Down :** The firm may be permanently close any intention to revive it. Such a decision is warranted.

(i) When the selling price does not even cover the variable cost; or

(ii) The demand for the output is very low and the future prospects are bleak.

Complete shut down saves the management from the fixed cost of running the factory or division or firm.

- 2. Partial or Temporary Shut Down :** Here the intention is to close down for sometime and re-open the firm when circumstances favour it. Some fixed cost will continue in the form of irreducible minimum to maintain the factory, some managerial remuneration, salaries, irreplaceable technical experts, etc. The saving from the partial shut down should be compared with the position if the firm continues. If there is substantial savings, shutdown may be preferable. Minor savings in expenditure does not warrant shut down because reviving a firm is a cumbersome process.

While suspension or temporary closure of an enterprise helps avoid certain fixed costs, certain additional costs may have to be incurred for redundancy payments, the necessary maintenance of plant or, on re-opening, for overhauling of the plant, training of new personnel, etc. All these costs are associated with the temporary closing down of an enterprise and, should, therefore, be taken into consideration while arriving at the decision.

16. X Ltd. provides you the following information:

Production and Sales at Present	25,000 Units
Sales at Present	₹ 6,25,000 p.a.
P/V Ratio	20%
Fixed Costs at Present	₹ 4,80,000 p.a.
Fixed Cost when the Plant is Shutdown	₹ 3,60,000 p.a.

Required

Advise the company whether the plant should be shutdown and calculate the Shutdown Point.

Sol :

Particulars	If Plant is Continued (₹)	If Plant is Shutdown (₹)
1. Sales	6,25,000	Nil
2. Less: Variable Cost @ 80%	5,00,000	Nil
3. Contribution (1 – 2)	1,25,000	Nil
4. Fixed Costs	4,80,000	3,60,000
5. Operating Losses (3 – 4)	3,55,000	3,60,000

Recommendation : Since the operating losses, if shutdown are larger than those, if not shutdown, the plant should not be shutdown.

$$\text{Shutdown Point} = \frac{\text{Fixed Costs at Present} - \text{Fixed Cost if Shutdown}}{\text{P / V Ratio}}$$

$$= \frac{₹ 4,80,000 - ₹ 3,60,000}{20\%} = \frac{₹ 1,20,000}{20\%} = ₹ 6,00,000$$

$$\text{Shutdown Point} = \frac{₹ 6,00,000}{₹ 25} = 24,000 \text{ units}$$

17. When Alpine Ltd. operates at normal capacity, it manufactures 2,00,000 units of its product per year. The unit cost of manufacturing at normal capacity is as follows :

Particulars	₹
Direct Materials	7.80
Direct Labour	2.10
Variable Overheads	2.50
Fixed Overheads	4.00
Product Cost (per unit)	16.40
Selling Price	21.00

During the next three months, only 10,000 units can be produced and sold. The management plans to shut down the plant, estimating that the fixed manufacturing overheads can be reduced to ₹ 74,000 for the quarter when the plant is not operating. The fixed overhead costs are incurred at a uniform rate throughout the year. Additional costs of plant shut down for the three months are estimated at ₹ 14,000.

- Should the plant be shut down for three months? Show computations.
- What is the shut down point for the three months in units of product?

Sol :

1. Decision Analysis (Shut Down Plant)

Particulars	Operating Plant (₹)	Shut Down Plant (₹)
i) Estimated Revenue (10,000 × ₹21)	2,10,000	
ii) Estimated Costs:		
Direct Materials	7.80	
Direct Labour	2.10	
Variable Overheads	2.50	
	12.40	
Total Variable Costs		(1,24,000)
iii) Estimated Contribution	86,000	–
Less: Fixed Costs	(2,00,000)	(74,000)
Shut Down Costs	–	(14,000)
Net Profit (Loss)	(1,14,000)	(88,000)

The plant should shut down for three months as the loss is ₹88,000 only, while operating the plant would entail a greater loss (₹1,14,000).

2. The shut down point is the point at which losses from the continued operation are equal to the shut down costs. That is,

$$\begin{aligned}
 &= \frac{(\text{Fixed Cost when the Plant is Operating}) - (\text{Shutdown Costs when the Plant is non-operating})}{\text{Contribution Margin in per unit}} \\
 &= \frac{₹2,00,000 - ₹88,000}{₹8.60} = 13,023 \text{ units.}
 \end{aligned}$$

5.3 STANDARD COSTING

Q12. Define the following terms :

- (i) **Standard cost**
(ii) **Standard costing**

Ans :

(i) Standard cost

Standard cost is a predetermined cost. It is a determination in advance of production, of what should be the cost. When standard costs are used for the purposes of cost-control, the technique is known as the standard costing.

Definition

- (i) The costing terminology of Chartered Institute of Management Accountants, London defines standard cost as follows :

“A predetermined calculation of how much costs should be under specified working conditions. It is built up from an assessment of the value of cost elements and correlates technical specifications and

the quantification of materials, labour and other costs to the prices and/or wages rates expected to apply during the period in which the standard cost is intended to be used. Its main purposes are to provide bases for control through variance accounting for the valuation of stock and work in progress and in some cases, for fixing selling prices."

- (ii) **According to Eric L. Kohler** has defined standard cost as follows :

"Standard cost is a forecast or pre-determination of what actual cost should be under projected conditions, serving as a cost control and as a measure of production efficiency or standard of comparison when ultimately aligned against actual cost. It furnishes a medium by which the effectiveness of current results can be measured and the responsibility for deviations can be placed."

The main points in the above definitions are :

- (i) It is pre-determined calculation of what cost ought to be under specific working conditions.
- (ii) It is built up by correlating standard quantity (of machine time, labour time and material) and forecast of future market trend for price standards {i.e., prices for material, wage rates and machine cost per hour etc.)
- (iii) It provides bases for control through variance accounting.
- (iv) It provides bases for valuation of stock and work-in-progress and in some cases for fixing selling price.

(ii) **Standard costing**

Standard Costing is the preparation of standard costs and applying them to measure the variations from actual costs and analysing the causes of variations with a view to maintain maximum efficiency in production. It is a technique which uses standards for costs and revenues for the purpose of control through variance analysis.

From the definition given above, it is clear that the technique of standard costing may comprise :

- (i) Ascertainment of standard costs under each element of cost i.e., material, labour and overhead.
- (ii) Measurement of actual costs.
- (iii) Comparison of the actual costs with the standard costs to find out the variances.
- (iv) Analysis of variances for the purpose of ascertainment of reasons of variances for taking the appropriate action where necessary so that maximum efficiency may be achieved.

Standard costing is a technique which is complimentary to the actual costing or historical costing system. Standard costs serve as yardsticks against which actual costs are compared to know the reasons of inefficiencies. Therefore, actual costing system cannot be ignored even if standard costing system is adopted.

Standard cost must be fixed for each of the following elements of cost :

- **Direct material** : A standard price is settled, having referred to the current rates and those expected in the immediate future quantities and qualities of materials are shown on the specification for production are considered and allowance is made for normal scrap or waste.
- **Direct labour** : The detailed operations both for machine and hand labour are settled and a labour cost is fixed for each operation. This may be based on piece work rates, bonus rates or on standard time rates, settled by test or experience.
- **Variable overhead** : It is assumed that variable overhead costs are proportional to the output achieved; therefore a standard cost per unit or per hour will be set.
- **Fixed overhead** : It is assumed that fixed overhead costs are more or less constant, with in reasonable limits irrespective of the levels of output.

In setting a standard cost, it is necessary to consider :

- The total fixed overhead costs for the period.
- The budgeted production for the period.
- The expected number of working hours during the period.

Q13. State the Need for Standard Costing.**(OR)****Explain the significance of standard costing in managerial decisions.****Ans :** **(Imp.)**

Standard costing is so important for every type of business organization. We can explain its importance under following points

1. Increase the efficiency

Account manager fixes the standard cost of direct material, labour and overheads and pre-determined standard cost increases the efficiency of production, every worker produce goods according to standard cost. After this actual cost is also compare with standard cost. With this comparison, manager will succeed to increase the efficiency of worker for reducing cost.

2. Effective utilization of resources

Standard costing is also helpful for effective utilization of resources, we know that the main resources in production is raw material and labour. Standard costing helps the management to effective utilization of the above.

3. Use in Budgetary Control

Standard costing can also use in budgetary control. We know that budgetary control is the part of management and in controlling, it can be used. In budgetary control, not only standard cost is calculated but after comparing relative actions of improvement are taken. With standard costing, effective control of cost can be possible.

4. Proper decisions

Standard costing is also helpful for taking proper decisions for deciding cost. There are large number of expenses and there are many alternatives of these expenses. When standard cost is decided at that time, best alternative from different expenses is chosen and it will reduce extra cost burden.

Q14. Briefly explain the Advantages and disadvantages of Standard Costing system.**(OR)****Explain the Advantages and disadvantages of Standard Costing system.****Ans :** **(Imp.)****Advantages**

- **Measuring efficiency :** Standard costs provide a yard stick for measuring actual performance and comparing it with the standard. By watching for deviations of actual performance from standard, management observes inefficiencies and is able to correct them. Similarly, it can detect and reward exceptional efficiency.
- **Determination of variance :** Standard costing enables to discover the cause for any variance between the actual costs and standard costs and to take remedial steps immediately.
- **Formulation of price and production policies :** Standard costing acts as a valuable guide to management in the formulation of price and production policies. It helps the management in pricing, production, profit planning etc.
- **Economy :** Standard costing provide :
 - Economy of calculation
 - Early availability of cost information and
 - The availability of anticipate changed condition.
- **Management by exception :** The management by exception is ensured because the efficient operations and processes are separated from the inefficient. In other words management does not spend time and effort searching unnecessary information, but can concentrate on important matters.
- **Increased productivity :** The setting of standards involves the effective utilization of men, materials and machines and thus may lead to economics and increased productivity in all business activity.

- **Cost Consciousness** : Standard costing creates an atmosphere of cost consciousness among executives, foremen and even the workers. It also provides incentives for efficient work.
- **Aid to inventory costing** : Standard costing provides the accuracy of product cost at various stages and is an aid to inventory costing and cost reporting.
- **Assists in preparing tenders and estimates** : Standard cost adjusted in line with current conditions provides an excellent basis for the preparation of estimates and may be used in preparing tenders or in fixing selling prices etc.
- **Full use of financial resources** : Standard costing enables to make fullest use of the financial resources of the business concern and avoids the losses due to under or over capitalization.
- **Preparation of P & L A/c** : It enables the preparation of profit and loss account at short intervals in an year and to forecast the profits during the remaining periods in such a year.
- **Helps in taking important decisions** : Standard costing provides useful cost data to the management in taking important decisions. The problem raised by inflation, rising prices etc., can be tackled effectively with the help of standard costing.

Disadvantages

- **Difficult to set up reliable standards** : It is difficult to set up reliable and workable standards. Unless the standards are correctly fixed, the control the study of variances will not be effective.
- **Expensive** : Revision of standards in the light of changed circumstances, become expensive. If the standards are not revised, they become out dated. Such standards are not reliable.
- **High degree of technical skill** : Establishment of standards may be costly and may require high degree of technical skill.

- **Fixing responsibilities is a difficult task** : For fixing responsibilities for an adverse variance, the controllable and uncontrollable portions of the variances should be segregated. This is a difficult task.
- **Adverse psychological effects** : Sometimes, standards create adverse psychological effects. If the standard is set a high-level, its non-achievement will lead to frustration and resistance. This acts as a discouragement rather than an incentive for better efficiency.
- **Unsuitable** : Due to unsuitable for jobbing type of industry, fixation of standards for each job becomes difficult and expensive. Non suitable for small industries: Installation of standard costing is an expensive affair. Hence small business concerns do not show much interest in installing standard costing.

5.4 VARIANCE ANALYSIS

Q15. Define Variance Analysis.

(OR)

What is Variance Analysis ?

Ans :

Meaning

The difference between the actual cost and standard cost is variance. In other words, a variance in standard costing refers to the divergence of actual cost from standard cost. If actual cost is less than standard cost, this is a sign of efficiency and the difference is termed as Favorable Variance or Positive variance.

If the actual cost is more than standard cost this is a sign of inefficiency and the difference is termed as Unfavorable Variance or Negative variance. The favorable and unfavorable variances are also known as credit and debit variances respectively. Variances of different items of cost provide the key to cost control because they disclose whether and to what extent standards set have been achieved.

Definitions

- (i) Variance Analysis is the process of analyzing variances by sub-dividing the total variance in such a way that the management can assign responsibility for off standard performance. It is a continuous process. It must be followed by intelligence and actual interpretation.
- (ii) Analysis of variances involves the segregation of total cost variances into different elements in such a way as to indicate or locate clearly the causes of such variances and persons held responsible for them.
- (iii) According to I.C.M.A. London as “that part of the variance accounting which relates to the analysis into constituent parts of variances between planned and actual performance.”

Q16. What are the Objectives and advantages of variance analysis.

Ans :

Objectives

- To evaluate individual performance by highlighting the difference in terms of costs between attained performance and desired performances
- To assign the responsibilities to individuals to motivate them to achieve the performance targets.

Advantages

- Variance analysis is an important tool of cost control and cost reduction.
- It helps the management to apply the principle of management by exception.
- Variance analysis reveals the efficiency of performance of the business concern.
- It helps the management to maximize the profit by analyzing the variances taking corrective steps.
- Variance analysis helps in preparing business plans for various periods.
- It creates consciousness among the staff and develops team spirit among them.
- By controlling costs, variance analysis boosts the profits of the organization.

5.4.1 Classification of Variances**Q17. State the Classification of Variances analysis.**

Ans :

Variances indicate the extent to which a desired level of performance as defined by management has been attained. They may be segregated by management, by cost and by elements of costs e.g., price and quality. Different variances are used in different industries.

Broadly the variances may be classified into the following categories.

- A. Direct Material Variances
- B. Direct Labour Variances
- C. Overhead Cost Variances
- D. Sales or Profit Variances

5.4.1.1 Material Variances

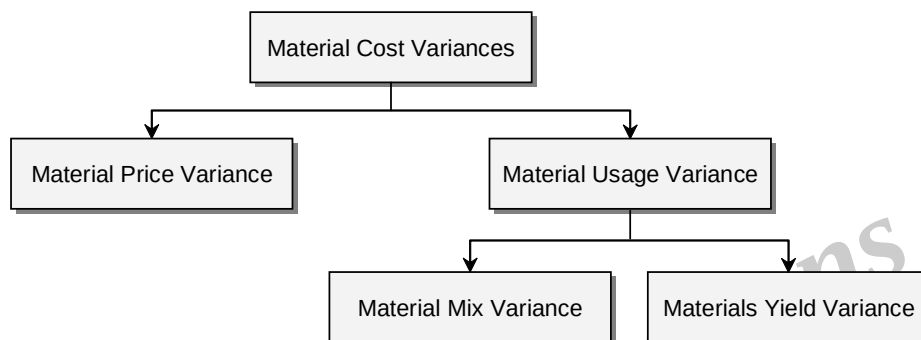
Q18. Explain briefly about Material Variances.

Ans :

They are also known as material cost variances. The material cost variances are the difference between the standard cost of materials on the basis of actual production and the actual cost of materials. It comprises of

1. Material Price Variance
2. Material Usage Variance

Material usage variance may further subdivided into material mix variance and material yield variance.



Material variances are thus divided into :

1. Material Cost Variance
2. Material Price Variance
3. Material Usage Variance
4. Material Mix Variance
5. Material Yield Variance

1. Material Cost Variance

The difference between actual cost of materials and standard cost of materials is known as material cost variance. It arises due to change in price of materials and variations in quality of materials. It is also known as total variance. It is calculated by using the following formula:

$$\text{MCV} = (\text{SP} \times \text{SQ}) - (\text{AP} \times \text{AQ})$$

or

Material cost variance = Standard material cost – Actual Material cost

$$\text{MCV} = \text{SC} - \text{AC}$$

Note :

- Standard material cost = Standard quantity of materials (SQ) × Standard price performance unit
- Actual materials cost = Actual quantity of materials (AQ) × Actual price performance unit (AP)

If standard cost is more than actual cost the variance will be favorable. If the actual cost is more than standard cost the variance will be unfavorable or adverse.

2. Material Price Variance

It is that part of material cost variance which is due to difference the actual price paid and the standard price specified for the material. It represents the difference between the standard cost of materials used and the actual cost of material used.

$$\text{Material Price Variance} = \text{Actual Quantity} \times \text{Standard Price} - \text{Actual Price}$$

or

$$\text{MPV} = \text{AQ}(\text{SP} - \text{AP})$$

Note :

- Here actual quantity of materials used is taken. So, the price of materials is taken performance unit.
- If the standard price is more than the actual price, the variance would be favorable.
- If actual price is more than the standard price the variance would be adverse.

Material price variance may arise due to the following reasons :

- Fluctuating in market price.
- Inefficiency in buying
- Changes in price policies.
- Emergency purchase leading to rise in prices.
- Untimely purchase
- Carelessness in use of materials
- Changes in methods of production.
- In correct of setting standards
- Changes in basic prices of materials.
- Failure to purchase materials at proper time
- Failure to get discount on purchases
- Loss due to pilferage
- Use of material mix other than standard mix.

3. Material Usage Variance

It is also known as quantity variance. It is that part of material cost variance which is due to difference between the standard quantity specified for output and the actual quantity of materials used. The difference between standard quantity and actual quantity is multiplied by standard price of materials and the resulting figure will be material usage variance.

This variance is calculated as follows :

$$\text{Material usage variance} = \text{Standard Rate} \times (\text{Standard quantity} - \text{Actual quantity})$$

or

$$= \text{SR} \times (\text{SQ} - \text{AQ})$$

4. Material Mix Variance

It is the sub-variance of material usage variance. It arises if a different blend of mix of material is used than specified. When two or more materials are used in the manufacture of a product, the difference between the standard composition and the actual composition of material mix is the material mix variance. In other words any difference between materials actually used and those specified by the formula constitutes material mix variance.

Causes for Variance

1. Using expensive/cheaper substitutes.
2. Short supply of material .
3. In efficiency of production department in mixing the materials.
4. Change in the quality of the product.

Calculation of Material Mix Variance

It is calculated in the following two situations :

1. When the actual weight of mix is equal to standard weight of mix :

$$\text{Material mix variance} = \text{Standard cost of standard mix} - \text{Standard cost of actual mix}$$

or

$$= (\text{Standard price} \times \text{Standard quantity}) - (\text{Standard Price} \times \text{Actual quantity})$$

In case standard quantity is revised due to shortage of one material, the formula will be Standard unit cost (revised standard quantity – actual quantity)

2. When actual weight of mix is different from standard weight of mix :

When quantities of actual material mix and standard material mix are different the following formula is used to calculate material mix variance :

Material mix variance

$$= \frac{\text{Total weight of actual mix}}{\text{Total weight of standard mix}} \times \text{Standard cost of actual mix}$$

$$= \text{Standard cost of actual mix}$$

In case the standard is revised due to shortage of one material then revised standard will be used instead of standard, the formula will become :

Material mix variance

$$= \frac{\text{Total weight of actual mix}}{\text{Total weight of revised standard mix}} \times \text{Standard cost of revised standard mix}$$

5. Material Yield Variance

It is the difference between actual yield and standard yield. This is the sub variance of material usage variance. This variance measures the abnormal loss or saving materials. This variance is particularly important in the use of process industries where certain percentage of loss of materials is inevitable. If the actual loss of materials differs from standard loss of materials yield variance will arise.

Causes of Variance

1. Lower yield due to non-standard material
2. Use of inferior quality materials
3. Pilferage of materials
4. Failure to return excess materials to the stores
5. Accounting errors
6. Rigid inspecting, resulting more rejections requiring additional materials
7. Increased rate of scrap than anticipated
8. Inefficient production methods
9. Inaccurate standards
10. Substandard equipment and tools

It is calculated as follows :

1. When the actual mix and standard mix are the same :

$$\text{Material yield variance} = \frac{\text{Standard cost of standard mix}}{\text{Net standard output i.e. (Gross output – standard loss)}}$$

2. When the actual mix and standard mix differ from each other :

$$\text{Material yield variance standard rate} = \frac{\text{Standard cost of revised standard mix}}{\text{Net standard output}}$$

In this variance it should be remembered that when actual yield is more than the standard yield, the variance is favorable.

PROBLEM ON MATERIALS VARIANCES

18. From the following information Calculate material price variance.

Material input	SQ	SR	Material input	AQ	Rate per kg
X	60 k.g	Rs. 20	X	180 kgs	15
Y	40 k.g	Rs. 10	Y	90 kgs	12
Z	42 kg	Rs. 22	Z	105 kgs	16

Sol :

Material 'X'

$$\begin{aligned}
 \text{MPV} &= \text{AQ} \times (\text{SP} - \text{AP}) \\
 &= 180 \times (20 - 15) \\
 &= 180 \times 5 \\
 &= 900 \text{ (F)}
 \end{aligned}$$

Material 'Y'

$$\begin{aligned}
 \text{MPV} &= \text{AQ} \times (\text{SP} - \text{AP}) \\
 &= 90 \times (10 - 12) \\
 &= 90 \times (-2) \\
 &= 180 \text{ (UF)}
 \end{aligned}$$

Material 'Z'

$$\begin{aligned}
 \text{MPV} &= \text{AQ} \times (\text{SP} - \text{AP}) \\
 &= 105 \times (22 - 16) \\
 &= 105 \times (6) \\
 &= 630 \text{ [Favourable]}
 \end{aligned}$$

19. From the following particulars calculate : (i) Material Cost Variance; (ii) Material Price Variance ; and (iii) Material Usage Variance.

Materials	Standard		Actual	
	Units	Price (₹)	Units	Price (₹)
A	1,010	1.0	1,080	1.2
B	410	1.5	380	1.8
C	350	2.0	380	1.9

Sol :

Working Notes

Material	Standard Cost			Actual Cost		
	Units	Price (₹)	Total (₹)	Units	Price (₹)	Total (₹)
A	1,010	1.0	1,010	1,080	1.2	1,296
B	410	1.5	615	380	1.8	684
C	350	2	700	380	1.9	722
			2,325			2,702

(i) Material Cost Variance

Standard Cost of Materials – Actual Cost of Materials

or St. Quantity × St. Unit Cost – Actual Quantity × Actual Unit Cost.

$$\text{Total Materials Cost Variance} = ₹ 2,325 - ₹ 2,702 = ₹ 377 \text{ (UF)}$$

(ii) Material Price Variance

$$\text{MPV} = \text{AQ} (\text{SP} - \text{AP})$$

$$\text{Materials A : } 1,080 \text{ Units } (₹ 1 - ₹ 1.20) = ₹ 216 \text{ (UF)}$$

$$\text{Materials B : } 380 \text{ Units } (₹ 1.5 - ₹ 1.80) = ₹ 114 \text{ (UF)}$$

$$\text{Materials C : } 380 \text{ Units } (₹ 2.0 - ₹ 1.90) = ₹ 38 \text{ (F)}$$

$$\text{Total Material Price Variance} = ₹ 292 \text{ (UF)}$$

(iii) Material Usage Variance

$$\text{SR} \times (\text{SQ} - \text{AQ})$$

$$\text{Materials A : } ₹ 1 (1,010 \text{ Units} - 1,080 \text{ Units}) = ₹ 70 \text{ (UF)}$$

$$\text{Materials B : } ₹ 1.5 (410 \text{ Units} - 380 \text{ Units}) = ₹ 45 \text{ (Favourable)}$$

$$\text{Materials C : } ₹ 2 (350 \text{ Units} - 380 \text{ Units}) = ₹ 60 \text{ (UF)}$$

$$\text{Total Material Usage Variance} = ₹ 85 \text{ (UF)}$$

Verification

Materials Cost Variance = Material Price Variance + Material Usage Variance

$$₹ 377 \text{ (Adverse)} = - ₹ 292 - ₹ 85$$

$$₹ 377 \text{ (Adverse)} = ₹ 377 \text{ (Adverse)}.$$

- 20. Following the data of a manufacturing concern, from the figures given below calculate material cost variance, material price variance, material usage variance.**

The standard quantity materials required for producing 1 ton of output is 40 units. A standard price per unit of material is Rs 3/-. During a particular period 90 tonnes of output was under taken. The materials required for actual production were 4000 units. An amount of Rs. 14000 was spent on purchasing the material.

Sol :

1. Material cost variance

$$\text{MCV} = (\text{SP} \times \text{SQ}) - (\text{AP} \times \text{AQ})$$

$$\text{AQ} = 4000 ; \text{AP} = \frac{14000}{4000} = 3.5 ; \text{SP} = \text{Rs } 3/-$$

$$\text{SQ} = \text{for 1 Ton of output } 40$$

$$1 - 40$$

$$90 - \frac{90 \times 40}{1} = \frac{3600}{1} = 3600$$

$$\text{MCV} = (\text{SP} \times \text{SQ}) - (\text{AP} \times \text{AQ})$$

$$= (3 \times 3600) - (3.5 \times 4000)$$

$$= 10,800 - 14,000$$

$$= 3,200 \text{ (UF)}$$

2. Material price variance

$$\text{MPV} = \text{AQ} \times (\text{SP} - \text{AP})$$

$$= 4000 (3 - 3.5)$$

$$= 4000 (-0.5)$$

$$= 2,000 \text{ (UF)}$$

3. Material usage variance

$$\text{MUV} = \text{MCV} - \text{MPV}$$

$$= (-3,200) - (-2,000)$$

$$= 1,200 \text{ (UF)}$$

(OR)

$$\text{MUV} = \text{SP} (\text{SQ} - \text{Q})$$

$$= 3 (3600 - 4000)$$

$$= 3 (-400)$$

$$= 1,200 \text{ (UF)}$$

21. From the following information, calculate the materials mix variance.

Materials	Standard	Actual
A	200 units @ ` 12	160 Units @ ` 13
B	100 units @ ` 10	140 Units @ ` 10

Due to shortage of material A, it was decided to reduce consumption of A by 15% and increase that of material B by 30%.

Sol :

Revised Standard Mix is :

Material A : 200 units – 15% of 200 = 30 (200 – 30) = 170 units

B : 100 units + 30% of 100 = 30 (100 + 30) = 130 units

Materials Mix Variance

Standard Unit Cost (Revised Standard Quantity – Actual Quantity)

Material A : ` 12 (170 units – 160 units) = ` 120 Favourable

Material B : ` 10 (130 units – 140 units) = ` 100 (UF)

Material Mix Variance = ` 20 Favourable

22. From the following information, calculate the material price variance, the material usage variance and material mix variance.

Raw Material	Standard	Actual
A	40 units @ Rs. 50 per unit	50 units @ Rs. 50 per unit
B	60 units @ Rs.40 per unit	60 units @ Rs. 45 per unit

Sol :

Row Materials	Standard Cost			Actual Cost			Revised Standard Cost			Standard Cost of Actual Mix
	Units	Rate Rs.	Total Rs.	Units	Rate Rs.	Total Rs.	Units	Rate Rs.	Total Rs.	
A	40	50	2,000	50	50	2,500	44	50	2,200	2,500 (i.e., 50×Rs. 50)
B	60	40	2,400	60	45	2,700	66	40	2,640	2,400 (i.e., 60×Rs. 40)
	100		4,400	110		5,200	110		4,840	4,900

(i) **Materials Cost Variance** = Standard Cost of Materials – Actual Cost of Materials
 = Rs. 4,400 – Rs. 5,200 = Rs. 800 (UF)

(ii) **Materials Price Variance**

Actual Quantity (Standard Unit Price – Actual Unit Price)

A : 50 units (Rs. 50 – Rs. 50) = 0

Material B : 60 units (Rs. 40 – Rs. 45) = Rs. 300 (UF)

Materials Price Variance = Rs. 300 (UF)

(iii) **Materials Usage Variance**

Standard Unit Price (Standard Quantity – Actual Quantity)

Material A : Rs. 50 (40 units – 50 units) = Rs. 500 (UF)

Material B : Rs. 40 (60 units – 60 units) = 0

Materials Usage Variance = Rs. 500 (UF)

Verification

MCV = MPV + MUV

800 (UF) = 300 (UF) + 500 (UF)

800 (UF) = 800 (UF)

(iv) **Materials Mix Variance**

= Standard Cost of Revised Standard Mix – Standard Cost of Actual Mix.

= Rs. 4,840 – Rs. 4,900 = Rs. 60 (Unfavourable)

Or Material Mix Variance

$$\frac{\text{Total Weight of Actual Mix}}{\text{Total Weight of St. Mix}} \times \text{St. Cost of St. Mix} - \text{St. Cost of Actual Mix}$$

$$\frac{50 \text{ units} + 60 \text{ units}}{40 \text{ units} + 60 \text{ units}} \times \text{Rs. 4,400} - \text{Rs. 4,900}$$

= Rs. 4,840 – Rs. 4,900

= 60 (Unfavourable)

5.4.2.2 Labour Variances

Q19. Define labour variance. Explain different forms of labour variance.

Ans :

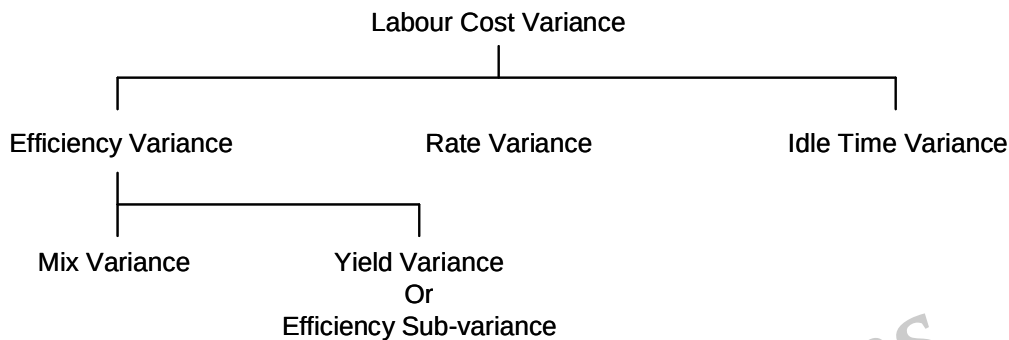
(Imp.)

Labour variances are also called as labour cost variance or direct wage variance. It is compute like material cost variance. Labour variance arise because of

- (i) Difference in actual rates and standard rates of labour and
- (ii) The variation in actual time taken by worker and the standard time allotted to them for performing a job.

The various labour variances can be analyzed as follows :

- (a) Labour cost variance
- (b) Labour rate variance
- (c) Labour efficiency variance
- (d) Labour idle time variance
- (e) Labour mix variance or gang composition variance.



Labour variances can be analyzed as follows :

- (a) Labour cost variance :** It is the difference between the standard cost of labour allowed (as per standard laid down) for the actual output achieved and the actual cost of labour employed. It is also known as wages variance.

$$\text{Labour cost variance} = \text{Standard cost of labour} - \text{Actual cost of labour}$$

- (b) Labour rate variance :** It is that portion of the labour cost variance, which arises due to the difference between the standard rate specified and the actual rate paid.

It is calculated as follows :

$$\text{Rate of pay variance} = \text{actual time taken}(\text{standard rate} - \text{actual rate})$$

- (c) Total labour efficiency variance :** It is that part of labour cost variance which arises due to the difference between standard labour cost of standard time for actual output and standard cost of actual time paid for.

It is calculated as follows :

$$\text{Total labour efficiency variance} = \text{Standard rate}(\text{standard time for actual output} - \text{actual time paid for})$$

Labour efficiency variance : It is that portion of labour cost variance which arises due to the difference between standard labour hours specified for the output achieved and the actual labour hours spent.

$$\text{Labour efficiency variance} = \text{Standard rate}(\text{standard time for actual output} - \text{actual time worked})$$

- (d) Labour idle time variance :** It is calculated only when there is abnormal idle time. It is the portion of labour cost variance, which is due to the abnormal idle time of workers. While calculating labour efficiency variance abnormal idle time is deducted from actual time expended to ascertain the real efficiency of the workers.

Labour idle time variance is expressed as :

$$\text{Idle time variance} = \text{abnormal idle time} \times \text{standard rate}$$

Total labour cost variance = labour rate of pay variance + total labour efficiency variance.

(e) Labour Mix variance (or) Gang composition variance

It is like materials mix variance and is a part of labour efficiency variance. This variance shows to the management as to how much of the labour cost variance is due to the change in the composition of labour force.

It is calculated as follows :

- i) If there is no change in the standard composition labour force and total time expended is equal to the total standard time, the formula is :

Labour mix variance = standard cost of standard composition (for actual time taken) – standard cost of actual composition (for actual time worked)

- ii) If the standard composition of labour force is revised due to shortage of a particular type of labour and total time expended is equal to the total standard time, the formula is :

Labour Mix variance = standard cost of revised standard composition (for actual time taken) – standard cost of actual composition (for actual time worked)

- iii) If the total actual time of labour differs from the total standard time of labour, the formula is :

$$\frac{\text{Total time of actual labour composition}}{\text{Total time of standard labour composition}} \times (\text{Standard cost of standard composition}) - (\text{Standard cost of actual composition})$$

- iv) If the standard is revised and the total actual time of labour differs from the total standard time of labour, the formula for the calculation of labour mix is :

$$\text{Labour mix variance} = \frac{\text{Total time of actual labour composition}}{\text{Total time of revised standard labour composition}} \times (\text{Standard cost of revised standard composition}) - (\text{Standard cost of actual composition})$$

PROBLEMS

- 23. The information regarding the composition and the weekly wage rate of labour force engaged on a job scheduled to be completed in 30 weeks are as follows.**

Standard

Skilled → 75 worker Rs 60 per week per worker

Semi - Skilled → 45 workers Rs 40 per week per worker

Un. Skilled Worker – 60 worker Rs 30 per week per worker.

Actual

Skilled = 70 worker Rs 70 per week per worker

Semi-skilled = 30 worker Rs 50 per week per worker

unskilled = 80 worker Rs 20 per week per worker

the work was completed in 32 weeks. Calculate LCV, LRV and LEV.

Sol :

(a) Calculating Labour Cost Variance

$$\text{LCV} = (\text{SH for AO} \times \text{SR}) - (\text{AH} \times \text{AR})$$

$$\begin{aligned}\text{Skilled} &= (30 \times 60 \times 75) - (32 \times 70 \times 70) \\ &= 135000 - 156,800 \\ &= 21,800 \text{ (UF)}\end{aligned}$$

SEMI - SKILLED

$$\begin{aligned}&(30 \times 45 \times 40) - (32 \times 30 \times 50) \\ &= 54,000 - 48,000 \\ &= 6,000 \text{ (F)}\end{aligned}$$

UN - SKILLED

$$\begin{aligned}&(30 \times 60 \times 30) - (32 \times 80 \times 20) \\ &= 54000 - 51200 \\ &= 2800 \text{ (F)}\end{aligned}$$

(b) LRV = AH - (SR - AR)

Calculating Actual Hours. (AH)

$$\text{Skilled} = 70 \times 32 = 2240$$

$$\text{Semi-Skilled} = 30 \times 32 = 960$$

$$\text{un skilled} = 80 \times 32 = 2560$$

Calculating standard Hour (SH)

$$\text{Skilled} \rightarrow 75 \times 30 \rightarrow 2250$$

$$\text{Semi-Skilled} \rightarrow 45 \times 30 \rightarrow 1350$$

$$\text{Un-skilled} \rightarrow 60 \times 30 \rightarrow 1800$$

$$\underline{\underline{5400}}$$

SKILLED

$$2240 (60 - 70)$$

$$2240 (- 10)$$

$$22,400 \text{ (UF)}$$

SEMI SKILLED

$$960 (40 - 50)$$

$$960 (- 10)$$

$$= 9600 \text{ (UF)}$$

UN-SKILLED

$$= 2560 (30 - 20)$$

$$= 2560 (10)$$

$$= 25,600 \text{ (UF)}$$

(c) Calculating labour Efficiency variance (LEV)

$$\begin{aligned} \text{LEV} &= \text{SR} (\text{SH} - \text{AH}) \\ \text{Material A} &\rightarrow 60 (2250 - 2240) \\ &\quad 60 (10) \\ \text{LEV} &= 600 (\text{F}) \\ \text{Material B} &\rightarrow 40 (1350 - 960) \\ &\quad \rightarrow 40 (390) \\ \text{LEV} &= 15,600 (\text{F}) \\ \text{Material C} &\rightarrow 30 (1800 - 2560) \\ &\quad 30 (-760) \\ \text{LEV} &= 22,800 (\text{UF}) \end{aligned}$$

24. The information regarding the composition and weekly wage Rates of labour force engaged on specific job scheduled to be completed in 48 hours.

Worker	Standard		Actual	
	No. of worker	Rate per hour	No. of worker	Rate per hour
Skilled	40	Rs 10	50	Rs 12
Un Skilled	20	Rs 8	30	Rs 6

The work was completed in 54 hours calculate labour cost, labour rate variance, labour efficiency.

Sol :

(i) Calculation of Labour cost variance

$$\begin{aligned} \text{LCV} &= (\text{SH} \times \text{SR}) - (\text{AH} \times \text{AR}) \\ \text{Skilled} &= (40 \times 10) - (50 \times 12) \\ &= 400 - 600 = 200 (\text{UF}) \\ \text{Un-Skilled} &= [20 \times 8] - [30 \times 6] = 160 - 180 = 20 (\text{UF}) \end{aligned}$$

(ii) Calculation of Labour rate variance

$$\begin{aligned} \text{LRV} &= \text{AH} (\text{SR} - \text{AR}) \\ \text{Skilled} &= 50 (10 - 12) \\ &= 50 (-2) = 100 (\text{UF}) \\ \text{Un-skilled} &= 30 (8 - 6) \\ &= 30 (2) \\ &= 60 (\text{UF}) \end{aligned}$$

(iii) Calculation of Labour efficiency variance

$$\begin{aligned} \text{LEV} &= \text{SR} (\text{SH} - \text{AH}) \\ \text{Skilled} &= 10 (40 - 50) \\ &= 10 (-10) = 100 (\text{UF}) \\ \text{Un-skilled} &= 8 (20 - 30) \\ &= 8 (-10) = 80 (\text{UF}) \end{aligned}$$

25. In a manufacturing concern, the following data is taken out.

2 Budget labour composition for producing = 100 articles

20 men at 1.20 paisa per hour for 25 hours.

30 women at 1.10 paisa per hour for 30 hours

Actual labour composition for producing 100 articles.

25 men at 1.50 paisa per hour for 24 hours.

25 woman at 1.20 paisa per hour for 25 hours

Calculate labour cost variance, labour rate variance and labour efficient variance.

Sol :

Calculating 7 standard hours

Given standard out put = 100 Articles

Actual out put = 100 Articles

$\therefore$ Given men standard hours = $20 \times 25 = 500$

Standard hours for women = $30 \times 30 = 900$

Actual hours for men $25 \times 24 = 600$

Actual hours for woman $25 \times 25 = 625$

(i) Calculation of labour cost variance

$LCV = (SH \text{ for AO} \times SR) - (AH \times AR)$

men = $(500 \times 1.20) - (600 \times 1.50)$

= $600 - 900$

= 300 (UF)

women = $(900 \times 1.10) - (625 \times 1.2)$

= $990 - 750 = 240$ (F)

$\therefore$ LCV = men = 300 (UF)

women = 240 (F)

60 (UF)

(ii) Calculation of labour rate variance

$LRV = AH (SR - AR)$

men = $600 (1.2 - 1.5) = 600 (-0.3) = 180$ (UF)

Women = $625 (1.10 - 1.20) = 625 (-0.10) = 62.5$ (UF)

men = 180 (UF)

women = 62.5 (UF)

242.5 (UF)

(iii) Calculation of Labour efficient variance

$$\text{LEV} = \text{SR} (\text{SH} - \text{AH})$$

$$\text{men} = 1.5 (500 - 600)$$

$$= 1.5 (-100) = 150 (\text{UF})$$

$$\text{women} = 1.2 (900 - 625)$$

$$= 1.2 (275) = 330 (\text{F}).$$

26. The standard cost card shows the following information.**Labour Rate = 0.50 per hour****Hours set upper unit of production 10 hours****Actual data Are given below****Units produced = 500****Hours worked = 6000****Actual labour cost = Rs 2400****Idle time due to power failure = 50 hours****Calculate : i) Labour cost variance****ii) Labour rate variance****iii) Labour efficiency variance****iv) Labour idle time variance****Sol :****Calculating Standard Hours**

$$1 \text{ — } 10 \text{ hours}$$

$$500 \text{ — } ? \quad \frac{500 \times 10}{1} = 5000 \text{ hours.}$$

$$\therefore \text{SH} = 5000$$

$$\text{AH} = 6000$$

$$\text{SR} = 0.50$$

$$\text{AR} = \frac{2400}{6000} = 0.4$$

$$\begin{aligned} \text{(i) LCV} &= (\text{SH} \times \text{SR}) - (\text{AH} \times \text{AR}) = (5000 \times 0.5) - (6000 \times 0.4) \\ &= 2500 - 2400 = 100 (\text{F}) \end{aligned}$$

$$\begin{aligned} \text{(ii) LEV} &= \text{SR} (\text{SH} - \text{AH}) = 0.50 (5000 - 6000) \\ &= 0.50 (-1000) = 500 (\text{UF}) \end{aligned}$$

$$\begin{aligned} \text{(iii) LRV} &= \text{AH} (\text{SR} - \text{AR}) \\ &= 6000 (0.5 - 0.4) \\ &= 6000 (0.1) = 600 (\text{F}) \end{aligned}$$

$$\begin{aligned} \text{(iv) Labour Idle Time variance} &= \text{Idle hour} \times \text{Standard Rate} \\ &= 50 \times 0.5 = 25 (\text{UF}) \end{aligned}$$

27. From the following data, calculate labour variances :

The budgeted labour force for producing product A is :

20 Semi-skilled workers @ 75 per hour for 50 hours

10 Skilled workers @ ` 1.25 per hour for 50 hours

The actual labour force employed for producing A is :

22 Semi-skilled workers @ 80 per hour for 50 hours.

8 Skilled workers @ ` 1.20 per hour for 50 hours.

Sol :

Working Notes

Workers	Standard Cost			Actual Cost			Standard cost of Actual Mix
	Hours per unit	Rate ,	Total ,	Hours per unit	Rate ,	Total ,	
Semi-skilled	1,000	0.75	750	1,100	0.80	880	825
Skilled	500	1.75	625	400	1.20	480	500
	1,500		1,375	1,500		1,360	1,325

(a) Labour Cost Variance

Standard Cost of Labour – Actual Cost of Labour

Labour Cost Variance = ` 1,375 – 1,360 = ` 15 (Favourable)

(b) Labour Rate Variance

Actual Time (Standard Rate – Actual Rate)

Semi-skilled Workers = 1,100 (` 0.75 – ` 0.80) = ` 55 (UF)

Skilled Workers = 400 (` 1.25 – ` 1.20) = ` 20 (F)

` 35 (UF)

(c) Labour Efficiency Variance

Standard Rate (Standard Time – Actual Time)

Semi-skilled Workers = ` 0.75(1,000 – 1,100) = ` 75 (UF)

Skilled Workers = ` 1.25(500 – 400) = ` 125 (F)

Total Labour Efficiency Variance = ` 50 (F)

(d) Labour Mix Variance

Standard Cost of Standard Mix – Standard Cost of Actual Mix

∴ Labour Mix Variance = ` 1,375 – ` 1,325 = ` 50 (F)

Verification

Labour Cost Variance = Rate of Pay Variance + Efficiency Variance

` 15 Favourable = – ` 35 + ` 50 = ` 15 Favourable

15(F) = 15(F)

Exercise Problems

1. Fixed overhead Rs. 2,40,000

Variable cost per unit Rs. 15

Selling price per unit Rs. 30.

Find out: (a) Break even sales units, and (b) if the selling price is reduced by 10%. What will be the new break even point ?

Ans. [(a) 16,000 units ; (b) Rs. 20,000 units]

2. Profit Rs. 200

Sales Rs. 2,000

Variable cost 75% of sales

(a) Find out Break even sales ; (b) what would be the sales volume to earn a profit of Rs. 500.

Ans. [(a) Rs. 1,200 ; (b) Rs. 3,200]

3. You are required to calculate break even volume using the following data :

Profit Rs. 5,000 (20% of sales)

P/V Ratio 50%.

Ans. [Rs. 15,000]

4. From the following figures, you are required to calculate (i) P/V Ratio, (ii) Break Even Sales Volume (iii) Margin of Safety and (iv) Profit.

Sales Rs. 4,000; Variable cost Rs. 2,000 ; Fixed cost Rs. 1,600.

Ans. [(i) 50% ; (ii) Rs. 3,200 ; (iii) Rs. 800 ; (iv) Rs. 400]

5. Given:

Break even volume Rs. 8,000

Fixed costs Rs. 3,200

Find out profit when sales are Rs. 10,000.

Ans. (Rs. 800)

Short Question and Answers

1. Define CVP analysis.

Ans :

Break-even Analysis refers to the study of cost-volume profit analysis. In the true sense, it refers to the analysis of costs and their possible impact on revenues and volume of the firm. In other words break-even analysis is concerned with the determination of particular volume at which firm's cost will be equal to its revenue profits.

Break-even analysis can be viewed in two ways. First, in the broad sense, it refers to the study of the relationship between cost, volume and profit at different levels of sales or production. Second, in the narrow sense, it refers to a technique of determining the level of operations at which total revenues are equal to total expenses, i.e., the point of no profit or no loss. The point of no profit or no loss is determined as 'Break-even Point' (BEP). The main objective of Break-even analysis is to find out the BEP. The Break-even point is obtained by the following formulas.

$$\begin{aligned}
 \text{(i) Break-even Point (in units)} &= \frac{\text{Fixed cost}}{\text{Selling price per unit} - \text{Variable cost per unit}} \\
 &= \frac{\text{Fixed cost}}{\text{Contribution per unit}} \quad [\because \text{Contribution} = \text{Sales} - \text{Variable cost}] \\
 \text{(ii) Break-even point (in sales)} &= \frac{\text{Fixed cost}}{\text{Contribution}} \times \text{Sales} = \frac{\text{Fixed cost}}{\text{P/V Ratio}} \quad \left[\because \text{P/V Ratio} = \frac{\text{Contribution}}{\text{Sales}} \right]
 \end{aligned}$$

2. Assumptions of Break-even point.

Ans :

CVP analysis is based on the following assumptions :

- i) All costs are either fixed or variable
- ii) Semi-variable costs are not considered to exist
- iii) Fixed costs remain fixed over a period of time
- iv) Variable cost per unit remain constant
- v) All costs and revenues are linear
- vi) Technology of production and productive efficiency remain unchanged.
- vii) The firm produces one product or a constant product wide

3. What is make (or) buy decisions?

Ans :

A firm may make some products; parts or tools or some times it may buy the same thing from outside. The management must decide which is profitable. In taking such a make or buy decision marginal costing technique helps the management.

Make or buy decisions become necessary when unutilized production facilities exist and the product being produced has a component, which can either be made in the factory itself or purchased from outside market.

While deciding to make or buy, the cost comparison should be made between the marginal cost of manufacture and the price at which the product or component could be obtained from outside. It is profitable to the firm to buy the component from others only when the supplier's price is less than the marginal cost. Fixed costs are excluded on the assumption that they have been already recovered.

4. Explain the uses of breakeven concept.

Ans :

- i) To forecast profit accurately, it is absolutely essential to determine the relationship between costs and profits on one hand and on volume and profit on the other hand. It aims at measuring variations in cost with volume. Profit planning considers the projected level of output, optimum product combination, estimated revenue, total cost of production and is thus based on break even analysis.
- ii) Break-even analysis is used in setting up flexible budgets which show costs at various levels of activities.
- iii) Break-even analysis helps management in the evaluation of performances for control purposes.
- iv) Break-even analysis may be helpful in formulating pricing policies by projecting the effect that various price structures have on costs and profits, especially when the demand for the product is elastic.
- v) Break-even analysis helps to ascertain the amount of overhead costs that could be charged to product costs at different levels of operation.
- vi) It helps in making short-run tactical decisions, e.g., shift working, acceptance of special order, choice of sales-mix, etc.

5. Product mix

Ans :

The Product Mix refers to the total products offered by an organization. A product line is a group of products within the product mix that can be classified together on account of criteria like customer needs, market served, channel used or technology employed.

Determination/Selection of Profitable Product Mix

Suitable product mix highlights the ratio of different products which are being produced and sold by the firms in order to gain maximum profits. Product mix helps in providing information regarding different products and product lines of a firm. Consistency is one of the most important characteristic of a product mix which would determine the nature of product line. A consistent product mix would advise the firm to produce similar product line whereas inconsistent product mix would result in producing/offering the diversified product lines.

Decisions regarding product mix are quite important in the firms which are engaged in producing multiple products. One needs to be very careful while taking decisions regarding suitable product mix that leads to maximum profitability. Thus, management must make use of marginal costing technique in order to serve the purpose of taking decisions with respect to determination of most profitable product mix by comparing profitability or contribution of various products of the firm. Marginal costing also takes into consideration the limiting factors in terms of their contribution/unit while taking decisions regarding the suitable product mix.

Following are the two conditions in which product mix decisions are being made,

- (i) If there exists any limiting factor or any change in the fixed costs, then the most profitable product mix would be determined by comparing the relative profitability of different products in a product line.
- (ii) In case of absence of key factor and constant fixed costs, the most profitable product mix would be determined on the basis of the contribution/unit of each product.

6. Capacity utilization.

Ans :

Every business wants to make the best use of its available resources. They have the aim to utilize their capacity to the fullest extent possible. The capacity refers to the capability of the business to utilize its resources. It is the measurement of output with reference to the available inputs. Capacity can be enhance by making the maximum possible use of these inputs.

Better utilization of capacity means better utilization of resources. It is an important consideration for cost determination and cost reduction for cost determination and cost reduction. Thus, it is essential to establish the capacity of the plant.

The most of the business these days do not utilize 100.% capacity of production. The business may be over or under utilizing the capacity. The reasons for under utilization of capacity are lack of demand, seasonal nature of product, diseconomies of scale beyond a certain level of production, non availability of other resources of production etc.

7. Plant shut down decisions.

Ans :

When a firm is operating for loss sometime, the management has to decide upon its shut down.

1. **Complete Shut Down :** The firm may be permanently close any intention to revive it. Such a decision is warranted.

- (i) When the selling price does not even cover the variable cost; or
- (ii) The demand for the output is very low and the future prospects are bleak.

Complete shut down saves the management from the fixed cost of running the factory or division or firm.

2. **Partial or Temporary Shut Down :** Here the intention is to close down for sometime and re-open the firm when circumstances favour it. Some fixed cost will continue in the form of irreducible minimum to maintain the factory, some managerial remuneration, salaries, irreplaceable technical experts, etc. The saving from the partial shut down should be compared with the position if the firm continues. If there is substantial savings, shutdown may be preferable. Minor savings in expenditure does not warrant shut down because reviving a firm is a cumbersome process.

While suspension or temporary closure of an enterprise helps avoid certain fixed costs, certain additional costs may have to be incurred for redundancy payments, the necessary maintenance of plant or, on re-opening, for overhauling of the plant, training of new personnel, etc. All these costs are associated with the temporary closing down of an enterprise and, should, therefore, be taken into consideration while arriving at the decision.

8. Standard cost

Ans :

Standard cost is a predetermined cost. It is a determination in advance of production, of what should be the cost. When standard costs are used for the purposes of cost-control, the technique is known as the standard costing.

Definition

- (i) The costing terminology of Chartered Institute of Management Accountants, London defines standard cost as follows :

"A predetermined calculation of how much costs should be under specified working conditions. It is built up from an assessment of the value of cost elements and correlates technical specifications and the quantification of materials, labour and other costs to the prices and/or wages rates expected to apply during the period in which the standard cost is intended to be used. Its main purposes are to provide bases for control through variance accounting for the valuation of stock and work in progress and in some cases, for fixing selling prices."

(ii) **According to Eric L. Kohler** has defined standard cost as follows :

"Standard cost is a forecast or pre-determination of what actual cost should be under projected conditions, serving as a cost control and as a measure of production efficiency or standard of comparison when ultimately aligned against actual cost. It furnishes a medium by which the effectiveness of current results can be measured and the responsibility for deviations can be placed."

9. Standard costing

Ans :

Standard Costing is the preparation of standard costs and applying them to measure the variations from actual costs and analysing the causes of variations with a view to maintain maximum efficiency in production. It is a technique which uses standards for costs and revenues for the purpose of control through variance analysis.

From the definition given above, it is clear that the technique of standard costing may comprise :

- (i) Ascertainment of standard costs under each element of cost i.e., material, labour and overhead.
- (ii) Measurement of actual costs.
- (iii) Comparison of the actual costs with the standard costs to find out the variances.
- (iv) Analysis of variances for the purpose of ascertainment of reasons of variances for taking the appropriate action where necessary so that maximum efficiency may be achieved.

Standard costing is a technique which is complimentary to the actual costing or historical costing system. Standard costs serve as yardsticks against which actual costs are compared to know the reasons of inefficiencies. Therefore, actual costing system cannot be ignored even if standard costing system is adopted.

10. Define Variance Analysis.

Ans :

Meaning

The difference between the actual cost and standard cost is variance. In other words, a variance in standard costing refers to the divergence of actual cost from standard cost. If actual cost is less than standard cost, this is a sign of efficiency and the difference is termed as Favorable Variance or Positive variance.

If the actual cost is more than standard cost this is a sign of inefficiency and the difference is termed as Unfavorable Variance or Negative variance. The favorable and unfavorable variances are also known as credit and debit variances respectively. Variances of different items of cost provide the key to cost control because they disclose whether and to what extent standards set have been achieved.

Definitions

- (i) Variance Analysis is the process of analyzing variances by sub-dividing the total variance in such a way that the management can assign responsibility for off standard performance. It is a continuous process. It must be followed by intelligence and actual interpretation.

- (ii) Analysis of variances involves the segregation of total cost variances into different elements in such a way as to indicate or locate clearly the causes of such variances and persons held responsible for them.
- (iii) According to I.C.M.A. London as "that part of the variance accounting which relates to the analysis into constituent parts of variances between planned and actual performance."

11. Advantages of variance analysis.

Ans :

- Variance analysis is an important tool of cost control and cost reduction.
- It helps the management to apply the principle of management by exception.
- Variance analysis reveals the efficiency of performance of the business concern.
- It helps the management to maximize the profit by analyzing the variances taking corrective steps.
- Variance analysis helps in preparing business plans for various periods.
- It creates consciousness among the staff and develops team spirit among them.
- By controlling costs, variance analysis boosts the profits of the organization.

12. Define labour variance.

Ans :

Labour variances are also called as labour cost variance or direct wage variance. It is compute like material cost variance. Labour variance arise because of

- (i) Difference in actual rates and standard rates of labour and
- (ii) The variation in actual time taken by worker and the standard time allotted to them for performing a job.

The various labour variances can be analyzed as follows :

- (a) Labour cost variance
- (b) Labour rate variance
- (c) Labour efficiency variance
- (d) Labour idle time variance
- (e) Labour mix variance or gang composition variance.

Choose the Correct Answer

1. Expenditure incurred on material, labour, machinery, production and inspection are summed up to find the [c]
(a) Total cost of product (b) Selling price of product
(c) Factory cost of product (d) None of the above
2. Which of the following calculate the actual cost of product [b]
(a) Cost estimation (b) Costing
(c) Both (A) and (B) (d) None of the above
3. The following is cost of indirect materials [a]
(a) Lubricating oil (b) Octroi
(c) Import duties (d) Insurance
4. Which of the following are characteristics of B.E.P? [d]
(a) There is no loss and no profit to the firm. (b) Total revenue is equal to total cost.
(c) Contribution is equal to fixed cost. (d) All of the above.
5. Which of the following are limitations of break-even analysis? [a]
(a) Static concept
(b) Capital employed is taken into account.
(c) Limitation of non-linear behavior of costs
(d) Limitation of presence of perfect competition
6. Given selling price is Rs 10 per unit, variable cost is Rs 6 per unit and fixed cost is Rs 5,000. What is break-even point? [c]
(a) 500 units (b) 1,000 units
(c) 1,250 units (d) None of the above
7. Contribution is also known as [a]
(a) Contribution margin (b) Net Margin
(c) Both a and b (d) None of the above
8. Given selling price is Rs 20 per unit, variable cost is Rs 16 per unit contribution is [b]
(a) Rs 1.25 per unit (b) Rs 4 per unit
(c) Rs 0.8 per unit (d) None of the above
9. Determine P/V ratio if Sales is Rs 80,000 and Variable cost is Rs 60,000. [b]
(a) 40% (b) 25%
(c) 50% (d) None of the above
10. Profit on sales is measured as [a]
(a) Sales*P/V Ratio – Fixed cost (b) Sales*P/V Ratio + Fixed cost
(c) Sales + P/V Ratio + Fixed cost (d) None of the above

Fill in the blanks

1. Fixed costs and variable costs are also known as _____ and _____
2. _____ is the difference between actual sales and the break-even sales.
3. The angle formed at a break-even point by the intersection of total cost line and sales line is called _____
4. BEP stands for _____
5. Contribution margin is also known as _____
6. CVP Stands for _____
7. Contribution = _____
8. BEP (in is calculated by using formula _____
9. The difference between the actual cost and standard cost is _____.
10. Material Usage Variance is also known as _____.

ANSWERS

1. Period cost, engineered costs
2. Margin of safety
3. An gle of incidence
4. Break-even point
5. Gross margin
6. Cost Volume Profit analysis
7. Sales-Variablecost
8.
$$\text{BEP (in Rs)} = \frac{\text{Fixed cost}}{\text{Contribution}} \times \text{Sales}$$
9. Variance
10. Quantity Variance.

FACULTY OF MANAGEMENT
MBA I - Semester Examination
Model Paper - I
ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

Note : Answer all the questions from Part-A and Part-B.

Each question carries 4 marks in Part-A and 12 marks in Part-B.

PART - A (5 × 4 = 20 Marks)

Answers

1. What is double entry system?	(Unit-I, SQA-1)
2. Capital Expenditure.	(Unit-II, SQA-1)
3. Common Size Statement analysis.	(Unit-III, SQA-3)
4. Tax Planning	(Unit-IV, SQA-2)
5. Define Variance Analysis.	(Unit-V, SQA-10)

PART - B (5 × 12 = 60 Marks)

6. (a) Explain accounting concepts and conventions. (Unit-I, Q.No. 6)

OR

- (b) Journalize the following transactions and prepare Ledger Accounts. (Unit-I, Prob. No. 5)

1. Ram started business with a capital of ` 10,000
2. He purchased goods from Mohan on credit ` 2,000
3. He paid cash to Mohan ` 1,000
4. He sold goods to Suresh ` 2,000
5. He received cash from Suresh ` 1,000
6. He purchased furniture from Mr. Laxman ` 5,000
7. He deposited 2,000 in a bank.

7. (a) On July 1st, 2001 A Company Ltd. Purchased a second hand Machinery (Unit-II, Prob. No. 9)
for ` 30,000 and spent ` 6,000 on reconditioning and installing it. On
January 1st, 2002 the firm purchased another Machinery for ` 12,000.
On June 30, 2003 the machinery purchased on January 1, 2002 was sold
for ` 8,000 and on July 1, 2003 a fresh plant was installed at a cost of
` 20,000. The company writes off 10% depreciation under Written Down
Value Method. The Accounts are closed every 31st December. Show the
machinery Account for the year ending 31st December, 2004.

OR

- (b) From the following trial balance of a trade on 31st March 2016, prepare trading and profit and loss account for the year ended 31-3-2016 and a balance sheet on that date.

Particulars	Debit (Rs.)	Particulars	Credit (Rs.)
Cash in hand 1200	Capital 60000		
Purchase 100000	4% Bank loan 20000		
Opening stock 35000	Bills payable 20000		
Sundry debtors 50000	Sundry Creditors 24000		
Plant and Machinery 60000	Sales 200000		
Furniture 15000	Bad debts reserve 1200		
Bills receivable 18000	Rent outstanding 1000		
Rent and taxes 10000			
Wages 16000			
Wages prepaid 1000			
Salaries 20000			
	326200		326200

Additional Information

1. Create reserve for doubtful debts at 5% on sundry debtors
2. Write off Rs.550 as bad debts
3. Depreciate plant and machinery at 5% and on furniture at 10%.
4. Provide outstanding liabilities : taxes Rs. 2000 and salaries Rs.4000
5. Closing stock Rs.40000

(Unit-II, Prob. No. 19)

8. (a) What are the tools and techniques of financial analysis?

(Unit-III, Q.No. 5)

OR

- (b) Following are assets and liabilities of Krishna Co. Ltd. as on 31st March, 2016.

Liabilities	(`)	Assets	(`)
Equity capital	5,00,000	Land and buildings	3,50,000
5% debentures	2,00,000	Machinery	2,50,000
Bank loan	1,50,000	Cash in hand	25,000
Creditors	75,000	Cash at bank	55,000
Bills payable	50,000	Debtors	85,000
Outstanding expenses	5,000	Bills receivable	1,05,000
		Stock	1,00,000
		Prepaid expenses	10,000
	9,80,000		9,80,000

Calculate :

- (i) Current ratio
- (ii) Quick ratio
- (iii) Debt to equity ratio
- (iv) Proprietary ratio
- (v) Assets turnover ratio if sales are ` 19,60,000.

(Unit-III, Prob. No. 5)

9. (a) Explain the various utilities of the cash flow statement analysis. (Unit-IV, Q.No. 1)

OR

- (b) The following are the Balance Sheets of A Co. Ltd. (Unit-IV, Prob. No. 7)

Liabilities	2019	2020	Assets	2019	2020
Equity	3000	4000	Land	2000	2500
Share premiere	-	100	Machinery	4000	4500
P & L A/c	1000	3000	(-) Depreciation	1400	1500
Debentures	1500	1000		2600	3000
Profit on redemption of debentures	-	20	Investments	200	350
Creditors	1400	1100	Stock	1400	1500
Tax provision	500	1000	Debtors	1000	1500
Proposed dividend	150	200	Cash	350	1570
	7550	10420		7550	10420

Additional information:

- (i) Machinery costing Rs. 500 (accumulated depreciation Rs. 300) was sold for Rs.100.
(ii) Tax paid during the year Rs. 600.
10. (a) An analysis of cost sheet is as follows: (Unit-V, Prob. No. 4)

Cost Element	Variable Cost (% of Sales)	Fixed Cost (`)
Direct material	32.8	—
Direct Labour	28.4	—
Factory overheads	12.6	1,89,900
Distribution overheads	4.1	58,400
General overheads	1.1	66,780

Budgeted Sales ` 18,50,000

You are required to determine:

- (i) Break even sales value
(ii) Profit at budgeted sales
(iii) Profit if actual sales are drop by 10% and increase by 5% from budgeted sales.

OR

- (b) Briefly explain the Advantages and disadvantages of Standard Costing system. (Unit-V, Prob. No. 1)

FACULTY OF MANAGEMENT
MBA I - Semester Examination
Model Paper - II
ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

Note : Answer all the questions from Part-A and Part-B.

Each question carries 4 marks in Part-A and 12 marks in Part-B.

PART - A (5 × 4 = 20 Marks)**Answers**

1. Distinguish between Journal Vs Ledger. (Unit-I, SQA-3)
2. Distinguish between Capital and Revenue Expenditure. (Unit-II, SQA-2)
3. Common Size Statement analysis (Unit-III, SQA-5)
4. Tax Avoidance (Unit-IV, SQA-3)
5. What is make (or) buy decisions? (Unit-V, SQA-3)

PART - B (5 × 12 = 60 Marks)

6. (a) Explain advantages and disadvantages of double entry system. (Unit-I, Q.No. 13)

OR

- (b) Prepare a trial balance as on 31st July 2009 from the following balances of Mr. Rajvansh. (Unit-I, Prob. No. 8)

Particulars	Amount	Particulars	Amount
Capital	10,000	Bank overdraft	8,700
Sales returns	1,000	Opening stock	15,000
Drawings	5,000	Cash	2,500
Bills payable	5,000	Purchases	9,000
Sales	15,000	Rent	1,000
Furniture	2,000	Bad debts	700
Creditors	12,000	Bills Receivable	3,500
Interest received	1,500	Debtors	14,500
Purchase returns	2,500		
Wages	500		

7. (a) Explain the provisions of Indian companies act regarding preparation and personation of final accounts of companies. (Unit-II, Q.No. 26)

OR

- (b) Machinery was purchased on 1-1-2000 for ₹ 40,000. On 30th June, another second hand machine was purchased ₹ 15,000 and ₹ 5,000 spent for repairs. On 30th June 2001, the second hand machine was sold for ₹ 15,000, machinery account after allowing depreciation of 10% p.a. on the written down value. (Unit-II, Prob. No. 8)

8. (a) From the following details, calculate: (Unit-III, Prob. No. 10)

- (i) Current ratio
- (ii) Quick ratio
- (iii) Debt-equity ratio
- (iv) Fixed assets ratio
- (v) Net profit ratio.

Balance Sheet

Equity capital	100000	Land	100000
Preference capital	50000	Buildings	80000
Debentures	50000	Stock	25000
Net profit	20000	Debtors	55000
Creditors	30000	B/R	3000
Bills payable	15000	Cash	2000
	265000		265000

OR

- (b) What are the advantages and limitations of ratio analysis. (Unit-III, Q. No. 11)

9. (a) Prepare Cash flow statement from following : (Unit-IV, Prob. No. 4)

Balance Sheet of Ramana Sree Ltd.

Liabilities	31-3-2015 Rs.	31-3-2015 Rs.	Assets	31.3-2015 Rs.	31.3-2015 Rs.
Share Capital	220000	220000	Land & Building	40000	37500
Share premium	30000	30000	Machinery	7000	100000
Secured loan	--	27000	Investment	90000	85000
General reserve	50000	30000	Current Assets	230000	60000
P & L A/c	32000	43000	Cash	10000	7500
Current Liabilities	98000	110000	Debtors	18300	167500
Proposed dividend	7000	40000	Bank balance	41700	42500
	500000	500000		500000	500000

Addition information :

1. Depreciation on building is Rs.10000
2. During the year machinery costing Rs.9500(WDV Rs.1700) was sold for Rs.3500

OR

- (b) Explain the proforma of cost sheet.

(Unit-IV, Q.No. 10)

10. (a) The sales and profit for 2016 and 2017 are as follows:

(Unit-V, Q.No. 6)

Year	Sales	Profit
2016	1,50,000	20,000
2017	1,70,000	125,000

Find out:

- (a) P/V Ratio
- (b) BEP
- (c) Sales for a profit of ` 40,000
- (d) Profit for sales of ` 2,50,000 and
- (e) MOS at a profit of ` 50,000.

OR

- (b) From the following particulars calculate :

(Unit-V, Prob. No. 19)

- (i) Material Cost Variance;
- (ii) Material Price Variance ; and
- (iii) Material Usage Variance.

Materials	Standard		Actual	
	Units	Price (`)	Units	Price (`)
A	1,010	1.0	1,080	1.2
B	410	1.5	380	1.8
C	350	2.0	380	1.9

FACULTY OF MANAGEMENT
MBA I - Semester Examination
Model Paper - III
ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

Note : Answer all the questions from Part-A and Part-B.

Each question carries 4 marks in Part-A and 12 marks in Part-B.

PART - A (5 × 4 = 20 Marks)**Answers**

1. Accounting equation. (Unit-I, SQA-5)
2. External Auditor Report (Unit-II, SQA-11)
3. Importance of Financial Statement Analysis. (Unit-III, SQA-9)
4. Define cost sheet? (Unit-IV, SQA-9)
5. Product mix (Unit-V, SQA-5)

PART - B (5 × 12 = 60 Marks)

6. (a) Discuss the significance and rationality of Indian Accounting Standards. (Unit-I, Q.No. 28)

OR

- (b) Journalize the following transactions, post them in the concerned ledger accounts and balance the accounts (Unit-I, Prob. No. 4)

1997	Particulars	Rs.
Jan. 1	Manoj commenced business with	80,000
" 2	Deposited in bank	75,000
" 5	Bought goods on credit from Srinath	8,000
" 8	Sold goods to Sridhar on credit	10,000
" 10	Purchased machinery, payment made by cheque	25,000
" 12	Paid Srinath - by cheque	6,000
" 16	Received cash from Sridhar	7,500
" 20	Bought Stationery from Govind Venkatesh for cash	300
" 24	Paid Rs. 500 as travelling expenses to Mukesh	
" 27	Bought goods for cash	3,000
" 31	Paid rent to landlord by cheque	400

7. (a) From the following balance's prepare Trading and Profit and Loss Account and Balance Sheet as on 31st December, 2014. (Unit-II, Prob. No. 20)

Particulars	Rs.	Rs.
Capital	--	10,000
Machinery	3,500	--
Debtors	2,700	--
Drawings	900	--
Creditors	--	1,400
Purchases	9,500	--
Wages	5,000	--
Bank	1,500	--
Opening Stock (1-1-2014)	2,000	--
Rent	450	--
Sales	--	14,500
Sundry expenses	200	--
Carriage	150	--
Total	25,900	25,900

Adjustments :

- (i) Closing stock as on 31-12-2014 Rs. 3600
- (ii) Wages outstanding Rs. 200, Sundry expenses outstanding Rs. 100
- (iii) Rent prepaid Rs. 100

OR

- (b) On July 1st, 2001 A Company Ltd. Purchased a second hand Machinery (Unit-II, Prob. No. 9) for ` 30,000 and spent ` 6,000 on reconditioning and installing it. On January 1st, 2002 the firm purchased another Machinery for ` 12,000. On June 30, 2003 the machinery purchased on January 1, 2002 was sold for ` 8,000 and on July 1, 2003 a fresh plant was installed at a cost of ` 20,000. The company writes off 10% depreciation under Written Down Value Method. The Accounts are closed every 31st December. Show the machinery Account for the year ending 31st December, 2004.

8. (a) What do you mean by Financial Statement analysis? Explain the objectives (Unit-III, Q.No. 1) and need of Financial Statement analysis.

OR

- (b) From the following information, you are required to prepare Balance Sheet. (Unit-III, Prob. No. 8)

(a) Current ratio	1.75
(b) Liquid ratio	1.25
(c) Stock turnover ratio (cost of sales/closing stock)	9
(d) Gross profit ratio	25%
(e) Debt collection period	1.5 months
(f) Reserves and surplus to capital	0.2
(g) Fixed asset turnover ratio (cost of sales)	1.2
(h) Capital gearing ratio (Long term debt to share capital)	0.6
(i) Fixed asset to net worth	1.25
(j) Sales	₹ 12,000

9. (a) From the following information prepare cash flow statement by indirect method of Ram Business Corporation. (Unit-IV, Prob. No. 3)

Liabilities and Capital	Jan.-1, 2015	31-12-2015	Assets	Jan.-1, 2015	31-12-2015
Share capital	35,000	43,500	Cash and bank	40,000	44,400
Surplus	15,000	19,500	Accounts receivable	10,000	20,700
Bonds payable	22,000	22,000	Inventories	15,000	15,000
Bonds payable discount	(2,000)	(1,800)	Land and building	4,000	4,000
Current liabilities	30,000	20,000	Business premises	20,000	16,000
Bank loan	—	12,000	Plant and equipment	15,000	17,000
			Accumulated depreciation	(5,000)	(2,800)
			Patents and trademarks	1,000	900
	1,00,000	1,15,200		1,00,000	1,15,200

Additional Information

- A building that costs ₹ 4,000 and which had a book value at ₹ 1,000 was sold for ₹ 1,400.
- The depreciation charge for the period was ₹ 800.
- There was a ₹ 5,000 issue of capital stock.
- Cash dividend of ₹ 2,000 and stock dividend of ₹ 3,500 were declared.

OR

- (b) Discuss the application areas of various tax planning and how it is different from avoidance and evasion. (Unit-IV, Q.No. 5)
10. (a) What are the factors taken into consideration while deciding whether to make (or) buy? (Unit-V, Q.No. 9)

OR

- (b) The information regarding the composition and the weekly wage rate of labour force engaged on a job scheduled to be completed in 30 weeks are as follows. (Unit-V, Prob. No. 23)

Standard

Skilled → 75 worker Rs 60 per week per worker

Semi - Skilled → 45 workers Rs 40 per week per worker

Un. Skilled Worker – 60 worker Rs 30 per week per worker.

Actual

Skilled = 70 worker Rs 70 per week per worker

Semi-skilled = 30 worker Rs 50 per week per worker

unskilled = 80 worker Rs 20 per week per worker

the work was completed in 32 weeks. Calculate LCV, LRV and LEV.

FACULTY OF MANAGEMENT
M.B.A. I- Semester (CBCS) Examination
July/August - 2021
ACCOUNTING FOR MANAGEMENT

Time: 2 Hours

Max. Marks: 80

PART - A (4 × 5 = 20 Marks)

Note: Answer any four questions

Answers

1. Significance of accounting standards	(Unit-I, Q.No. 28)
2. Depreciation methods	(Unit-II, SQA-10, 12)
3. Advantages of ratio analysis	(Unit-III, SQA-1)
4. Distinguish between funds and cash flow analysis	(Unit-IV, SQA-11)
5. CVP analysis	(Unit-V, SQA-1)

PART - B (4 × 15 = 60 Marks)

Note: Answer any four questions.

6. Explain the managerial uses of financial accounting system.	(Unit-I, Q.No.4)

OR

7. From the following details, journalise the transactions.

Dec 1	Started business with cash	Rs. 10,000
5	Bough goods for cash	Rs. 4,000
10	Sold goods to Hemant	Rs. 2,000
15	Sold goods for cash	Rs. 1,000
20	Received cash from Hemant	Rs. 1,500
25	Paid for rent	Rs. 500
28	Purchased good from Raju	Rs. 5,000
30	Cash paid to Raju	Rs. 2,000
31	Received commission	Rs. 500

Sol :

Journal Entries

Date	Particulars	LF	Debit (₹)	Credit (₹)
Dec.-1	Cash A/c Dr. To Capital A/c (Being business commenced with cash)		10,000	10,000
Dec.-5	Purchases A/c Dr. To Cash A/c (Being goods purchased for cash)		4,000	4,000

Dec.-10	Hemant A/c To Sales A/c (Being goods sold to Hemant on credit)	Dr.		2,000	2,000
Dec.-15	Cash A/c To Sales A/c (Being goods sold for cash)	Dr.		1,000	1,000
Dec.-20	Cash A/c To Hemant A/c (Being cash received from Hemant)	Dr.		1,500	1,500
Dec.-25	Rent A/c To Cash A/c (Being rent paid in cash)	Dr.		500	500
Dec.-28	Purchases A/c To Raju A/c (Being goods purchased from Raju on credit)	Dr.		5,000	5,000
Dec.-30	Raju A/c To Cash A/c (Being payment of cash to Raju)	Dr.		2,000	2,000
Dec.-31	Cash A/c To Commission A/c (Being receipt of commission)	Dr.		500	500

8. Describe the provisions relating to preparation of financial statements as per the Indian companies Act.

(Unit-II, Q.No.26)

OR

9. Prepare Trading and P&L Account and Balance Sheet for the year ending 31-12-2020.

Capital	Rs. 10,000	Debtors	Rs. 7,500
Drawings	Rs. 2,000	Return inwards	Rs. 300
Purchases	Rs. 20,800	Return outwards	Rs. 580
Opening stock	Rs. 6,900	Carriage inwards	Rs. 400
Sales	Rs. 27,500	Wages	Rs. 325
Creditors	Rs. 8,100	Salaries	Rs. 900
Rent	Rs. 1,000	Interest	Rs. 480
Discount (cr)	Rs. 270	Carriage outwards	Rs. 700
Furniture	Rs. 900	Insurance	Rs. 900
Machinery	Rs. 5,000	Bank loan	Rs. 3,000
Travelling expenses	Rs. 650	Cash	Rs. 575
Bad debts	Rs. 120		

Adjustments:

- (i) Closing stock Rs. 8,900
- (ii) Prepaid insurance Rs.250
- (iii) Outstanding salaries Rs.100 and Rent Rs.200
- (iv) Depreciate Machinery and Furniture at 10%.

(Unit-II, Prob. No. 22)

10. Discuss the significant techniques for analysis of financial statements.

(Unit-III, Q.No. 5)

OR

11. From the following details, calculate:

(Unit-III, Prob. No. 10)

- (i) Current ratio
- (ii) Quick ratio
- (iii) Debt-equity ratio
- (iv) Fixed assets ratio
- (v) Net profit ratio.

Balance Sheet

Equity capital	100000	Land	100000
Preference capital	50000	Buildings	80000
Debentures	50000	Stock	25000
Net profit	20000	Debtors	55000
Creditors	30000	B/R	3000
Bills payable	15000	Cash	2000
	265000		265000

12. Discuss the methodology of BSC and its significance.

(Out of Syllabus)

13. The following are the Balance Sheets of A Co. Ltd.

Liabilities	2019	2020	Assets	2019	2020
Equity	3000	4000	Land	2000	2500
Share premiere	-	100	Machinery	4000	4500
P&L A/c	1000	3000	(-) Depreciation	1400	1500
Debentures	1500	1000		2600	3000
Profit on redemption of debentures	-	20	Investments	200	350
Creditors	1400	1100	Stock	1400	1500
Tax provision	500	1000	Debtors	1000	1500
Proposed dividend	150	200	Cash	350	1570
	7550	10420		7550	10420

Additional information:

- (i) Machinery costing Rs. 500 (accumulated depreciation Rs. 300) was sold for Rs.100.
- (ii) Tax paid during the year Rs. 600.

(Unit-IV, Prob. No. 7)

14. From the following detail find out:

- (i) Contribution per unit
- (ii) BEP
- (iii) Margin of safety
- (iv) Profit
- (v) Volume of sales to earn a profit of Rs. 24000.

Total Fixed cost	Rs. 18000
Total Variable cost	Rs. 30000
Total Sales	Rs. 60000
Units sold	Rs. 20000

(Unit-V, Prob. No. 8)

15. From the following data, which product would you recommend to be manufactured in a factory time being the key factor?

Particulars	Per unit of product - A	Per unit of product - B
Direct material	Rs. 24	Rs. 14
Direct labour at Re 1 per hour	2	3
Variable overheads at Rs.2 per hour	4	6
Selling price	Rs. 100	110
Standard time to produce	2 Hours	3 Hours

(Unit-V, Prob. No. 12)

FACULTY OF MANAGEMENT

MBA I-Semester (CBCS) Examination

November - 2020

ACCOUNTING FOR MANAGEMENT

Time: 2 Hours

Max. Marks: 80

PART – A (4 × 5 = 20 Marks)**Note: Answer any four questions****Answers**

1. What is Double Entry System? What are its advantages ? (Unit-I, SQA-1, 2)
2. What are Financial Statements ? (Unit-II, SQA-6)
3. Explain the meaning of trial balance. (Unit-I, SQA-10)
4. State the uses of cash flow statement. (Unit-IV, SQA-1)
5. Explain the meaning and importance of cost volume profit analysis. (Unit-V, SQA-1)

PART – B (4 × 12 = 60 Marks)**Note: Answer any five questions**

6. Briefly explain different accounting concepts and conventions. (Unit-I, Q.No. 6)
7. Journalise the following transactions and prepare Ledger Account.

2000 Jan. 1	Commenced Business with cash	1,50,000
5	Purchased furniture for cash	5,000
8	Bought goods on cash	15,000
10	Bought goods on credit from Brown	20,000
12	Sold goods for cash	25,000
15	Sold goods on credit to Madhavan	15,000
18	Bought goods on credit from Kannan	30,000
20	Sold goods on credit to Rahul	20,000
25	Paid cash to Brown	15,000
30	Salaries paid	4,000

(Unit-I, Prob. No. 7)

8. Describe the steps involved in the preparation of financial statement of a firm. (Unit-II, Q.No. 13, 15, 17)
9. Machinery was purchased on 1-1-2000 for ₹ 40,000. On 30th June, another second hand machine was purchased ₹ 15,000 and ₹ 5,000 spent for repairs. On 30th June 2001, the second hand machine was sold for ₹ 15,000, machinery account after allowing depreciation of 10% p.a. on the written down value. (Unit-II, Prob. No. 8)

10. What are the different techniques used to analysis and interpretation of financial statement ? (Unit-III, Q.No. 5)

11. From the following information, you are required to prepare Balance Sheet.

(a) Current ratio	1.75
(b) Liquid ratio	1.25
(c) Stock turnover ratio (cost of sales/closing stock)	9
(d) Gross profit ratio	25%
(e) Debt collection period	1.5 months
(f) Reserves and surplus to capital	0.2
(g) Fixed asset turnover ratio (cost of sales)	1.2
(h) Capital gearing ratio (Long term debt to share capital)	0.6
(i) Fixed asset to net worth	1.25
(j) Sales	₹ 12,000

(Unit-III, Prob. No. 8)

12. What are the implication of balanced score card on budgetary system? (Out of Syllabus)

13. Balance sheets of MLS Black and White as on 1st Jan. 2001 and 31st Dec. 2001.

Liabilities	1.1.2001 (₹)	31.12.2001 (₹)	Assets	1.1.2001 (₹)	31.12.2001 (₹)
Creditors	40,000	44,000	Cash	10,000	7,000
Whites loan	25,000	-	Debtors	30,000	50,000
Loan from Bank	40,000	50,000	Stock	35,000	25,000
Capital	1,25,000	1,53,000	Machinery	80,000	55,000
			Land	40,000	50,000
			Buildings	35,000	60,000
	2,30,000	2,47,000		2,30,000	2,47,000

During the year machine costing ₹ 10,000 (accumulated depreciation ₹ 3,000) was sold for ₹ 5,000. The provision for depreciation against machinery as on 1st Jan. 2001 was ₹ 25,000 and on 31st Dec. 2001 ₹ 40,000. Net profit for the year 2001 amounted to ₹ 45,000. Prepare cash flow statement.

(Unit-IV, Prob. No. 5)

14. What do you understand by the term 'Break Even Analysis'? Enumerate its merits and demerits.

(Unit-V, Q.No. 1, 7)

15. The sales and profit for 2016 and 2017 are as follows:

Year	Sales	Profit
2016	1,50,000	20,000
2017	1,70,000	125,000

Find out:

- (a) P/V Ratio
- (b) BEP
- (c) Sales for a profit of ` 40,000
- (d) Profit for sales of ` 2,50,000 and
- (e) MOS at a profit of ` 50,000.

(Unit-V, Prob. No. 6)

Rahul Publications

FACULTY OF MANAGEMENT
MBA I-Semester (CBCS) Examination
January - 2020
ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

PART – A (4 x 5 = 20 Marks)**[Short Answer Type]****Note: Answer any four questions****Answers**

1. Distinguish between Journal and Ledger	(Unit-I, SAQ-3)
2. Capital expenditure	(Unit-II, SAQ-1)
3. Limitations of Ratio Analysis	(Unit-III, SAQ-2)
4. Utility of Cash Flow Statement	(Unit-IV, SAQ-1)
5. Assumptions of Break-even Statement.	(Unit-V, SAQ-2)

PART – B (4 x 12 = 60 Marks)**Note: Answer any five questions**

6. (a) Explain the importance of Accounting information in managerial decisions. (Unit-I, Q.No. 5)
- OR
- (b) From the following details prepare final accounts for the year ending 31st March 2018.

	`		`
Opening stock	1,250	Capital	9,228
Sales	11,800	Creditors	1,780
Depreciation	667	Bills payable	541
Commission (Cr)	211	Plant	6,230
Insurance	380	Return outwards	1,380
Carriage inwards	300	Cash	895
Furniture	670	Salaries	750
Printing	481	Debtors	1,05
Carriage outwards	200	Discount (Dr)	328
Bills receivable	2,730	Returns Inwards	1,659
Wages	1,589	Bank O.D	4,000
Petty cash	47	Purchases	8,679
Bad debts	180		

(Incomplete Problem)

7. (a) Discuss the provisions relating to maintenance of Books of Accounts as per Indian Companies

(Unit-II, Q.No. 26)

OR

- (b) A company purchased 10 identical machines on 1st January at a cost of ₹ 11,000 each, each has a value and an average life of 5 years. At the end of 2nd year the company sold one machine purchased another for ₹ 14,000 in the beginning of the 3rd year. Journalize the transactions in company for the first three years.

(Unit-II, Prob. No. 2)

8. (a) Explain the managerial uses of Financial Statement analysis and state various techniques.

(Unit-III, Q.No. 1, 5)

OR

- (b) From the following details, prepare a summarized Balance Sheet as on 31-3-2018.

	₹		₹
Networking Capital	1,20,000	Proprietary ratio	0.75
Reserves	80,000	Current ratio	2.5
Bank O.D	20,000	Quick ratio	1.5

(Unit-III, Prob. No. 4)

9. (a) Discuss the methodology of Balance Score Card and its applicability.

(Out of Syllabus)

OR

- (b) From the following details, prepare a cash flow statement.

Balance Sheet

Liabilities	2017 (₹)	2018 (₹)	Assets	2017 (₹)	2018 (₹)
Share capital	50,000	50,000	Gross Block	1,00,000	1,40,000
P & L A/c	80,000	1,10,000	(-) Depreciation	40,000	55,000
Debentures	-	30,000		60,000	85,000
Creditors	20,000	25,000	Stock	60,000	1,00,000
Bills payable	20,000	5,000	Debtors	30,000	40,000
Other C.L	10,000	15,000	Bills receivable	10,000	
Cash	20,000	10,000			
	1,80,000	2,35,000		1,80,000	2,35,000

(Unit-IV, Prob. No. 6)

10. (a) Discuss the managerial uses and limitations of CVP analysis.

(Unit-V, Q.No. 1, 7)

OR

(b) An analysis of cost sheet is as follows:

Cost Element	Variable Cost (% of Sales)	Fixed Cost (`)
Direct material	32.8	—
Direct Labour	28.4	—
Factory overheads	12.6	1,89,900
Distribution overheads	4.1	58,400
General overheads	1.1	66,780

Budgeted Sales ` 18,50,000

You are required to determine:

- (i) Break even sales value
- (ii) Profit at budgeted sales
- (iii) Profit if actual sales are drop by 10% and increase by 5% from budgeted sales.

(Unit-V, Prob. No. 4)

FACULTY OF MANAGEMENT
MBA I-Semester (CBCS) Examination
December - 2018 / January - 2019
ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

PART – A (4 x 5 = 20 Marks)**[Short Answer Type]****Note: Answer any four questions****Answers**

1. Define accounting.	(Unit-I, SQA-4)
2. Distinguish capital and revenue expenditure.	(Unit-II, SQA-2)
3. Common size statement analysis objectives.	(Unit-III, SQA-3)
4. Balance Score Card	(Out of Syllabus)
5. Make or Buy Decision	(Unit-V, SQA-3)

PART – B (4 x 12 = 60 Marks)**Note: Answer any five questions**

6. (a) Discuss the significance of Accounting standards in global accounting environment. (Unit-I, Q.No. 28)

OR

- (b) Journalize the following transactions and prepare Ledger Accounts.
1. Ram started business with a capital of ` 10,000
 2. He purchased goods from Mohan on credit ` 2,000
 3. He paid cash to Mohan ` 1,000
 4. He sold goods to Suresh ` 2,000
 5. He received cash from Suresh ` 1,000
 6. He purchased furniture from Mr. Laxman ` 5,000
 7. He deposited 2,000 in a bank. (Unit-I, Prob. No. 5)
7. (a) Explain the procedure involved in the preparation and presentation of financial statements. (Unit-II, Q.No. 13, 15, 17)

OR

- (b) A firm purchases a plant for ` 10,000 on 1<sup>st</sup> January 2013. Installation charges are ` 2000. Plant to have a scrap value of ` 1,000 at the end of its useful life of 5 years. You are required prepare account for five years charging depreciation according to straight line method. (Unit-II, Prob. No. 3)
8. (a) Discuss the managerial uses and limitation of ratio analysis. (Unit-III, Q.No. 11)

OR

- (b) Using the following information, compute the balance sheet items for a firm having of ` 36 lakhs.

Sales / Total Assets	3	Sales/debtors	15
Sales/Fixed Assets	5	Current ratio	2
Sales/Current Assets	7.5	Total Assets/Net worth	2.5
Sales/Inventories	20	Debt/Equity	1

(Incomplete Problem)

9. (a) Discuss the application areas of various tax planning and how it is different from avoidance and evasion.

(Unit-IV, Q.No. 4)

OR

- (b) From the following details, prepare a cash flow statement.

Balance Sheets

Liabilities	2017 (`)	2018 (`)	Assets	2017 (`)	2018 (`)
Share Capital	10,000	15,000	Land	4,000	4,000
P & L A/c	5,000	8,000	Machinery	3,000	5,000
General Reserve	4,000	6,000	Stock	10,000	12,000
Creditors	8,000	12,000	Debtors	10,000	15,000
Bills payable	5,000	3,000	Cash	5,000	8,000
	32,000	44,000		32,000	44,000

Additional Information :

During the year depreciation charged on machinery for ` 1,000 and dividend paid ` 2,000.

(Unit-IV, Prob. No. 2)

10. (a) Draw a break - even chart and discuss the assumptions and utility of break - even - analysis.

(Unit- V, Q.No. 1, 2)

OR

- (b) From the following details. Find out :

- Contribution per unit
- BEP
- Margin of safety
- Profit
- Volume of sales to earn a profit of ` 24,000

Units sold	20,000
Total sales	` 60,000
Total variable cost	` 30,000
Total Fixed cost	` 18,000

(Unit-V, Prob. No. 8)

FACULTY OF MANAGEMENT

MBA I-Semester (CBCS) Examination

July / August - 2018

ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks : 80

Note: Answer all the questions**PART – A (5 × 4 = 20 Marks)****[Short Answer Type]****Answers**

1. Accounting Equation (Unit-I, SQA-5)
2. Capital Vs. Revenue Expenditure (Unit-II, SQA-2)
3. Stock Turnover Ratio (Unit-III, SQA-4)
4. Tax Planning (Unit-IV, SQA-2)
5. Break-Even Point (Unit-V, SQA-1)

PART – B (5 × 12 = 60 Marks)**[Essay Answer Type]**

6. (a) Explain Accounting Concepts and Conventions. (Unit-I, Q.No. 6)

OR

- (b) Journalise the following :

- (i) Commercial business with each ` 30,000.
- (ii) Paid cost ` 500
- (iii) Purchased goods for each ` 15,000 and for credit ` 10,000 from Somesh.
- (iv) Bought motor cycle for ` 6,000
- (v) Cash worth ` 5,000 were taken away by the proprietor for his personal use.

(Unit-I, Prob. No. 2)

7. (a) What is the process for preparation and presentation of financial statement?

(Unit-II, Q.No. 13, 15, 17)

OR

- (b) Following balances are extracted from the books of Kautilya & Co. on 31st March, 2016. You are required to prepare the trading, profit and loss account and a balance sheet as on the date :

Particulars	(`)	Particulars	(`)
Opening stock	500	Commission (Cr)	200
Bills receivable	2,250	Returns outward	250
Purchases	19,500	Trade expenses	100
Wages	1,400	Office fixtures	500

Insurance	550	Cash in hand	250
Sundry debtors	15,000	Cash at bank	2,375
Carriage inward	400	Rent and taxes	550
Commission (Dr.)	400	Carriage outward	725
Interest on capital	350	Sales	25,000
Stationary	225	Bills payable	1,500
Returns inward	650	Creditors	9,825
		Capital	8,950

Closing stock is valued at ₹ 12,500.

(Unit-II, Prob. No. 17)

8. (a) Define ratio analysis. What is the importance of ratio analysis in analyzing the financial performance?

(Unit-III, Q.No. 6, 10)

OR

- (b) Following are assets and liabilities of Krishna Co. Ltd. as on 31st March, 2016.

Liabilities	(₹)	Assets	(₹)
Equity capital	5,00,000	Land and buildings	3,50,000
5% debentures	2,00,000	Machinery	2,50,000
Bank loan	1,50,000	Cash in hand	25,000
Creditors	75,000	Cash at bank	55,000
Bills payable	50,000	Debtors	85,000
Outstanding expenses	5,000	Bills receivable	1,05,000
		Stock	1,00,000
		Prepaid expenses	10,000
	9,80,000		9,80,000

Calculate :

- Current ratio
- Quick ratio
- Debt to equity ratio
- Proprietary ratio
- Assets turnover ratio if sales are ₹ 19,60,000.

(Unit-III, Prob. No. 5)

9. (a) What are the advantages and utilities of cash flow statement? Explain.

(Unit-IV, Q.No. 1)

OR

- (b) From the following information prepare cash flow statement by indirect method of Ram Business Corporation.

Liabilities and Capital	Jan.-1, 2015	31-12-2015	Assets	Jan.-1, 2015	31-12-2015
Share capital	35,000	43,500	Cash and bank	40,000	44,400
Surplus	15,000	19,500	Accounts receivable	10,000	20,700
Bonds payable	22,000	22,000	Inventories	15,000	15,000
Bonds payable discount	(2,000)	(1,800)	Land and building	4,000	4,000
Current liabilities	30,000	20,000	Business premises	20,000	16,000
Bank loan	–	12,000	Plant and equipment	15,000	17,000
			Accumulated depreciation	(5,000)	(2,800)
			Patents and trademarks	1,000	900
	1,00,000	1,15,200		1,00,000	1,15,200

Additional Information

- A building that costs ₹ 4,000 and which had a book value at ₹ 1,000 was sold for ₹ 1,400.
- The depreciation charge for the period was ₹ 800.
- There was a ₹ 5,000 issue of capital stock.
- Cash dividend of ₹ 2,000 and stock dividend of ₹ 3,500 were declared.

(Unit-IV, Prob. No. 3)

10. (a) Define CVP Analysis. Explain the managerial uses of break-even point. (Unit-V, Q.No. 1, 7)

OR

- (b) From the following particulars, calculate BEP.

Sales ₹ 4,00,000

Variable Cost ₹ 2,40,000

Fixed costs ₹ 60,000

You are required to calculate the following :

- New BEP of sales is reduced by 5%.
- New BEP of variable cost is increased by 9%.
- New BEP of fixed cost is increased by 5%.

(Unit-V, Prob. No. 2)

FACULTY OF MANAGEMENT

M.B.A. I - Semester (CBCS) Examination

May / June 2018

ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

PART – A (5 x 4 = 20 Marks)**(Short Answer Type)****Note: Answer any FIVE of the following questions****Answers**

1. Journal	(Unit-I, SQA-6)
2. Capital Expenditure	(Unit-II, SQA-1)
3. Tax planning	(Unit-IV, SQA-2)
4. Tax evasion	(Unit-IV, SQA-4)
5. Make or Buy decision	(Unit-V, SQA-3)

PART – B (5 x 12 = 60 Marks)**(Eassy Answer Type)****Note: Answer any FIVE of the following questions**

6. (a) Explain scope of financial Accounting.	(Unit-I, Q.No. 2)
OR	
(b) Explain the accounting concepts and convention.	(Unit-I, Q.No. 6)
7. (a) Explain the provisions of Indian Companies Act regarding preparation and presentation of Financial Statements.	(Unit-II, Q.No. 26)

OR

- (b) From the following trial balance of a trade on 31st March 2016, prepare trading and profit and loss account for the year ended 31-3-2016 and a balance sheet on that date :

Particulars	Debit (Rs.)	Particulars	Credit (Rs.)
Cash in hand	1200	Capital	60000
Purchase	100000	4% Bank loan	20000
Opening stock	35000	Bills payable	20000
Sundry debtors	50000	Sundry Creditors	24000
Plant and Machinery	60000	Sales	200000
Furniture	15000	Bad debts reserve	1200
Bills receivable	18000	Rent outstanding	1000
Rent and taxes	10000		
Wages	16000		
Wages prepaid	1000		
Salaries	20000		
	<u>326200</u>		<u>326200</u>

Additional Information

1. Create reserve for doubtful debts at 5% on sundry debtors
 2. Write off Rs.550 as bad debts
 3. Depreciate plant and machinery at 5% and on furniture at 10%.
 4. Provide outstanding liabilities : taxes Rs. 2000 and salaries Rs.4000
 5. Closing stock Rs.40000 (Unit-II, Prob. No. 19)
8. (a) What is meant by financial analysis and explain the need for and significance of financial statements analysis? (Unit-III, Q.No. 1)

OR

- (b) Mr. Krishna & Co. presents the following information for the year ended 31 December.

Credit Sales	Rs. 150000	Cash sales	Rs. 250000
Returns Inwards	Rs. 25000	Opening stock	Rs. 28000
Closing Stock	Rs. 35000		

Find out inventory turnover ratio when gross profit is 20% on sales. Also calculate inventory holding period.

(Unit-III, Prob. No. 6)

9. (a) What is Cash flow statement? What are the advantages of Cash flow statement. (Unit-IV, Q.No. 1)

OR

- (b) Prepare Cash flow statement from following :

Balance Sheet of Ramana Sree Ltd.

Liabilities	31-3-2015 Rs.	31-3-2015 Rs.	Assets	31.3-2015 Rs.	31.3-2015 Rs.
Share Capital	220000	220000	Land & Building	40000	37500
Share premium	30000	30000	Machinery	7000	100000
Secured loan	--	27000	Investment	90000	85000
General reserve	50000	30000	Current Assets	230000	60000
P & L A/c	32000	43000	Cash	10000	7500
Current Liabilities	98000	110000	Debtors	18300	167500
Proposed dividend	7000	40000	Bank balance	41700	42500
	<u>500000</u>	<u>500000</u>		<u>500000</u>	<u>500000</u>

Addition information :

1. Depreciation on building is Rs.10000
2. During the year machinery costing Rs.9500(WDV Rs.1700) was sold for Rs.3500 (Unit-IV, Prob. No. 4)

10. (a) What is meant by CVP analysis? Explain the managerial uses of break even concept.

(Unit-V, Q.No. 1, 7)

OR

- (b) There are two similar plants under the same management. The management desires to merge these two plants. The following particulars are available.

	Plant - I	Plant - II
Capacity operation	100%	60%
Sales	Rs.300 lakhs	Rs.120 lakhs
Variable costs	Rs.220 lakhs	Rs.90 lakhs
Fixed costs	Rs.40 lakhs	Rs.20 lakhs

You are required to calculate

1. What capacity of the unused plant would have to be operated for the purpose of breakeven and
2. What the profitability on working at 75% of the merged capacity would be ?

(Unit-V, Prob. No. 15)

FACULTY OF MANAGEMENT

MBA I-Semester (CBCS) Examination

January - 2018

ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

Note: Answer all the questions**PART – A (5 × 4 = 20 Marks)****[Short Answer Type]****Answers**

1. Ledger (Unit-I, SQA-7)
2. Revenue Expenditure (Unit-II, SQA-3)
3. Depreciation (Unit-II, SQA-4)
4. Balance Score Card (Out of Syllabus)
5. Breakeven Point (Unit-V, SQA-1)

PART – B (5 × 12 = 60 Marks)**[Essay Answer Type]**

6. (a) Explain the rationale of Accounting Standards and their growing importance in global accounting environment. (Unit-I, Q.No. 28)

OR

- (b) From the following balances, prepare a Trial Balance

Particulars	₹	Particulars	₹
Drawings	2,000	Sales	68,000
General Expenses	4,740	Purchases	40,000
Buildings	20,000		
Stock	16,540		
Wages	8,515		
Debtors	6,280		
Creditors	2,500		
Bad Debts	550		
Loan to Ravi	7,880		

(Unit-I, Prob. No. 9)

7. (a) Distinguish between capital expenditure and revenue expenditure. (Unit-II, Q.No. 2)

OR

- (b) A certain trading concern acquires an asset for ₹ 10,000 and decides to write off depreciation on it on fixed installment method each year. If the asset is to last for 5 years, show the asset account as well as depreciation account for 3 years. Also show how the asset will appear in the Balance Sheet of the firm at the end of the third year.

(Unit-II, Prob. No.4)

8. (a) What is common size statement analysis ? Explain its importance.

(Unit-III, Q.No. 17)

OR

- (b) From the following details, prepare a statement of proprietary funds with as many details as possible.

- A Stock Velocity = 6
- B Capital turnover = 2
- C Fixed assets turnover ratio = 4
- D Gross profit turnover ratio = 20
- E Debtors velocity = 2 months
- F Creditors velocity = 73 days

The gross profit was ₹ 60,000, Reserves and surplus amounted to ₹ 20,000, closing stock was ₹ 5,000 in excess of opening stock.

(Unit-III, Prob. No. 7)

9. (a) What is Balance Score Card ? Explain the significance and its methodology.

(Out of Syllabus)

OR

- (b) From the following summary cash account of Y, Ltd, Prepare cash flow statement for the current year ended March, 31, 2015.

Cash Account for the Current year ended March 31, 2015

Particulars	₹ (000)	Particulars	₹ (000)
Opening balance	50	Payment to supplies	2,000
Issue of equity	300	Purchase of fixed assets	200
Receipts from customers	2,800	Overhead expenses	200
Sale of fixed assets	100	Wages and salaries	100
		Taxation	250
		Dividend	50
		Repayment of bank loan	300
		Closing balance	150
	<u>3,250</u>		<u>3,250</u>

(Unit-IV, Prob. No. 4)

10. (a) Explain about break-even analysis.

(Unit-V, Q.No. 1)

OR

(b) You are given the following data for the year 2016 of XYZ Ltd.

	(`)	%
Variable costs	6,00,000	60
Fixed costs	3,00,000	10
Net Profit	1,00,000	10
	10,00,000	100

Find out breakeven point, P.V. Ratio and margin of safety ratio.

(Unit-V, Prob. No. 3)

Rahul Publications

FACULTY OF MANAGEMENT
M.B.A. I - Semester Examination
February - 2017
ACCOUNTING FOR MANAGEMENT

Time: 3 Hours

Max. Marks: 80

Note : Answer all the questions from Part-A and Part-B.

Each question carries 4 marks in Part-A and 12 marks in Part-B.

PART - A (5 x 4 = 20 Marks)
(Short Answer Type)

Answers

1. What is Double Entry Accounting System ? (Unit-I, SQA-1)
2. What do you mean by revenue expenditure ? (Unit-II, SQA-3)
3. Explain about liquidity ratios. (Unit-III, SQA-5)
4. What is Tax Planning ? (Unit-IV, SQA-2)
5. Managerial uses of break-even concept. (Unit-V, SQA-4)

PART - B (5 × 12 = 60 Marks)

[Essay Answer type]

6. (a) Define accounting and explain its nature and scope. (Unit-I, Q.No. 1, 2)

OR

- (b) Prepare journal and post them into ledger.

			Rs.
2015	Jan. 1	James started business with cash	5,000
		Furniture	2,000
		Machinery	3,000
		Loan taken from his uncle	5,000
	Jan. 3	Goods purchased from Sundaram & Co.	1,000
	Jan. 4	Sold goods to Rama Rao	5,000
	Jan. 31	Rama Rato became insolvent and hence received only 5% of debt from his property. Remaining amount is taken as bad debt.	

(Unit-I, Prob. No. 6)

7. (a) Explain the provisions of the Indian Companies Act regarding preparation and presentation of financial statements. (Unit-II, Q.No. 26)

OR

- (b) From the following balance's prepare Trading and Profit and Loss Account and Balance Sheet as on 31st December, 2014.

	Rs.	Rs.
Capital	--	10,000
Machinery	3,500	--
Debtors	2,700	--
Drawings	900	--
Creditors	--	1,400
Purchases	9,500	--
Wages	5,000	--
Bank	1,500	--
Opening Stock (1-1-2014)	2,000	--
Rent	450	--
Sales	--	14,500
Sundry expenses	200	--
Carriage	150	--
Total	25,900	25,900

Adjustments :

- (i) Closing stock as on 31-12-2014 Rs. 3600
- (ii) Wages outstanding Rs. 200, Sundry expenses outstanding Rs. 100
- (iii) Rent prepaid Rs. 100

(Unit-II, Prob. No. 20)

8. (a) What do you mean by Ratio Analysis ? Explain the importance of Ratio Analysis.

(Unit-III, Q.No. 6, 10)

OR

- (b) From the data given below compute :

- (i) Working capital
- (ii) Net capital employed
- (iii) Current Ratio
- (iv) Acid test ratio
- (v) Debt-equity ratio

A.C Ltd. Balance Sheet as at 31-12-2014

Equities	Rs.	Assets	Rs.
Equity Share Capital	25,000	Fixed Assets	30,000
Pref. Share Capital	5,000	Stores	2,000
Reserve & Surplus	4,000	Stock in trade	4,000
Debentures	8,000	S/Drs	1,000
Bank Loan	4,000	Cash in hand	500
Sundry Creditors	1,000	Balance with	
		Scheduled Bank	2,500
Proposed dividends	1,000	Preliminary expenses	8,000
Provision for taxation	2,000	Brokerage on subscription	2,000
Contingent liabilities	(2,000)	of shares	
	<u>50,000</u>		<u>50,000</u>

Comment on financial health of the company.

(Unit-III, Prob. No. 9)

9. (a) Explain the various utilities of the cash flow statement analysis.

(Unit-IV, Q.No. 1)

OR

- (b) From the following summary cash account of Y Ltd., prepare cash flow statement for the current year ended March 31 in accordance with AS-3 using the direct method. The company does not have any cash equivalents.

Summary Cash Account for the current year ended March 31.

	Rs.		Rs.
Opening Balance	50,000	Payment to suppliers	20,00,000
Issue of equity shares	3,00,000	Purchase of fixed assets	2,00,000
Receipts from customers	28,00,000	Overhead expenses	2,00,000
Sale of fixed assets	1,00,000	Wages and salaries	1,00,000
		Taxation	2,50,000
		Dividend	50,000
		Repayment of bank loan	3,00,000
		Closing Balance	1,50,000
	<u>32,50,000</u>		<u>32,50,000</u>

(Unit-IV, Prob. No. 1)

10. (a) Direct materials per unit Rs. 150

Direct labour per unit Rs. 100

Variable factory overhead per unit Rs. 20

Selling price per unit is Rs. 500

Variance selling expenses is Rs. 20 per unit and

Fixed selling and administrative expenses are Rs. 30,000

Required

- (i) Calculate the total variable cost per unit
- (ii) Calculate the total fixed expenses for the year
- (iii) Calculate the margin of safety.

(Unit-V, Prob. No. 7)

OR

- (b) From the following particulars, calculate BEP.

Rs.

Sales : 2,00,000

Variable cost : 1,20,000

Fixed cost : 30,000

Also, calculate

- (a) New BEP, if selling price is reduced by 10%
- (b) New BEP, if variable cost is increased by 10%
- (c) New BEP, if fixed cost is increased by 10%.

(Unit-V, Prob. No. 1)