Accounting for Managerial Decision

(As per the Revised Syllabus 2017-18 of Mumbai University for S.Y. BMS, Semester – III)

Winner of "Best Commerce Author – 2013-14" by Maharashtra Commerce Association

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Preface

It is a matter of great pleasure to present this new edition of the book on **Accounting for Managerial Decision** to the students and teachers of Bachelor of Commerce S.Y.BMS started by University of Mumbai. This book is written on lines of revised syllabus instituted by the university. The book presents the subject matter in a simple and convincing language.

In keeping with the aims of the book, we have attempted to present the text in a lucid and simple style; the treatment is comprehensive and by and large non-mathematical. Another notable feature of this volume is that the discussions of the concepts and theories are invariably followed by exhaustive illustrative problems. To test the understanding of the readers as also to enable them to have sufficient practice, a large number of exercises have also been given at the end of the chapters.

The syllabus contains a list of the topics covered in each chapter which will avoid the controversies regarding the exact scope of the syllabus. The text follows the term wise, chapter-topic pattern as prescribed in the syllabus. We have preferred to give the text of the section and rules as it is and thereafter added the comments with the intention of explaining the subject to the students in a simplified language. While making an attempt to explain in a simplified language, any mistake of interpretation might have crept in.

This book is a unique presentation of subject matter in an orderly manner. This is a student-friendly book and tutor at home. We hope the teaching faculty and the student community will find this book of great use.

We are extremely grateful to Mr. K.N. Pandey of Himalaya Publishing House Pvt. Ltd., for their devoted and untiring personal attention accorded by them to this publication.

We owe a great many thanks to a great many people who helped and supported us during the writing of this book which includes Principal, HOD, and Students of BMS Section.

We gratefully acknowledge and express our sincere thanks to the following people without whose inspiration, support, constructive suggestions of this book would not have been possible.

- Mr. Jitendra Singh Thakur *(Trustee, Thakur College)*
- Dr. Chaitaly Chakraborty *(Principal, Thakur College)*
- Mrs. Janki Nishikhant Jha

We welcome suggestions from students and teachers for further improvement of quality of book.

— Authors

Syllabus

Accounting for Managerial Decision

[60 Lectures: 3 Credit]

Modules at a Glance

Sr. No.	Modules	No. of Lectures
1	Analysis and Interpretation of Financial Statements	15
2	Ratio Analysis and Interpretation	15
3	Cash Flow Statement	15
4	Working Capital	15
	Total	**60**

Learning Objectives:

1. To acquaint management learners with basic accounting fundamentals.
2. To develop financial analysis skills among learners.
3. The course aims at explaining the core concepts of business finance and its importance in managing a business.

Unit No.	Name of the Topic
Unit 1	**Analysis and Interpretation of Financial Statements:** 1. Study of Balance Sheet of Limited Companies – Schedule VI (New). Study of Manufacturing, Trading, Profit and Loss A/c of Limited Companies – Schedule VI (New). 2. Vertical Form of Balance Sheet and Profit & Loss A/c, Trend Analysis, Comparative Statement and Common Size.
Unit 2	**Ratio Analysis and Interpretation** (Based on Vertical Form of Financial Statements) Including Conventional and Functional Classification Restricted to: **1. Balance Sheet Ratios:** Current Ratio, Liquid Ratio, Stock Working Capital Ratio, Proprietory Ratio, Debt Equity Ratio, Capital Gearing Ratio. **2. Revenue Statement Ratios:** Gross Profit Ratio, Expenses Ratio, Operating Ratio, Net Profit Ratio, Net Operating Profit Ratio, Stock Turnover Ratio, Debtors Turnover, Creditors Turnover Ratio. **3. Combined Ratios:** Return on Capital Employed (Including Long-term Borrowings), Return on Proprietor's Fund (Shareholder Fund and Preference Capital), Return on Equity Capital, Dividend Payout Ratio, Debt Service Ratio. **4. Different Modes of Expressing Ratios:** Rate, Ratio, Percentage, Number. Limitations of the Use of Ratios.
Unit 3	Preparation of Cash Flow Statement [Accounting Standard – 3 (Revised)]**.**
Unit 4	**Working Capital:** Concept, Estimation of Requirements in Case of Trading and Manufacturing Organizations. **Receivables Management:** Meaning and Importance, Credit Policy Variables, Methods of Credit Evaluation (Traditional and Numerical – Credit Scoring); Monitoring the Debtors Techniques (DSO, Ageing Schedule).

Question Paper Pattern

Maximum Marks: 75
Questions to be Set: 05
Duration: 2½ Hours
All questions are compulsory carrying 15 Marks each.

Question No.	Particulars	Marks
Q.1	Objective Questions: (A) Sub-questions to be asked (10) and to be answered (any 08) (B) Sub-questions to be asked (10) and to be answered (any 07) (*Multiple Choice/True or False/Match the Columns/Fill in the Blanks)	15
Q.2	Full Length Practical Question **OR** Full Length Practical Question	15 15
Q.3	Full Length Practical Question **OR** Full Length Practical Question	15 15
Q.4	Full Length Practical Question **OR** Full Length Practical Question	15 15
Q.5	(A) Theory Questions (B) Theory Questions **OR** Short Notes: To be asked (05) To be answered (03)	08 07 15

Note:

Practical question of 15 Marks may be divided into two sub-questions of 7/8 and 10/5 Marks. If the topic demands, instead of practical questions, appropriate theory question may be asked.

Contents

Chapter 1

Introduction to Managerial Decision

MEANING AND OBJECTIVE OF FINANCIAL STATEMENT

Financial statements are compilation of financial data, collected and classified in a systematic manner according to the accounting principles, to assess the financial position of an enterprise as regards to its profitability, operational efficiency, long and short-term solvency and growth potential.

Financial statements are basic and formal means through which management of .an enterprise make public communication of financial information along with select quantitative details. They are structured financial representation of the financial position, performance and cash flows of an enterprise. Many users are rely on the general purpose financial statements as the major source of financial information and therefore, financial statements should be prepared and presented in accordance with their requirement. Of course, some of the users may have the power to obtain, information in addition to that contained in the financial statements. That does not undermine the dependence of the general users on the information contents of the financial statements.

Financial statements provide information about the financial position, performance and cash flows of an enterprise that is useful to wide range of users in making economic decisions. It means to show the results of the stewardship of management, or the accountability of management for the resources entrusted to it.

Part I – Form of Balance Sheet

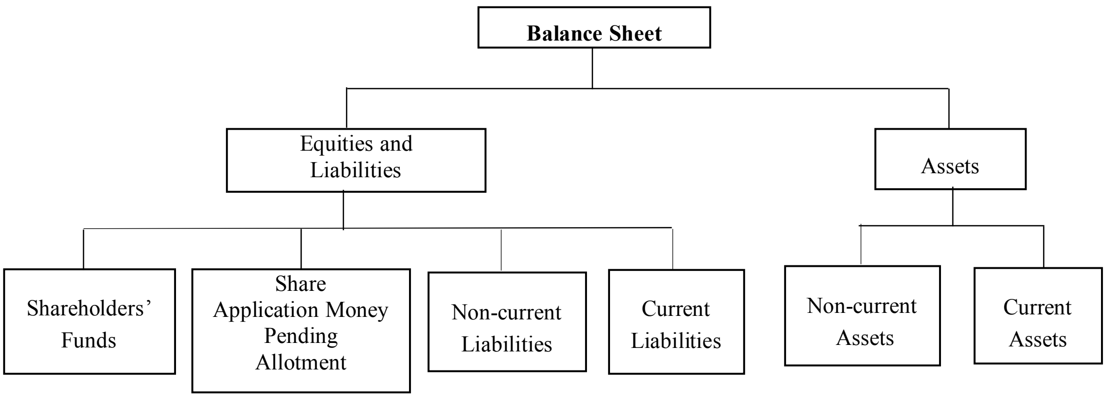


Fig. 1

Break-up of Equities and Liabilities

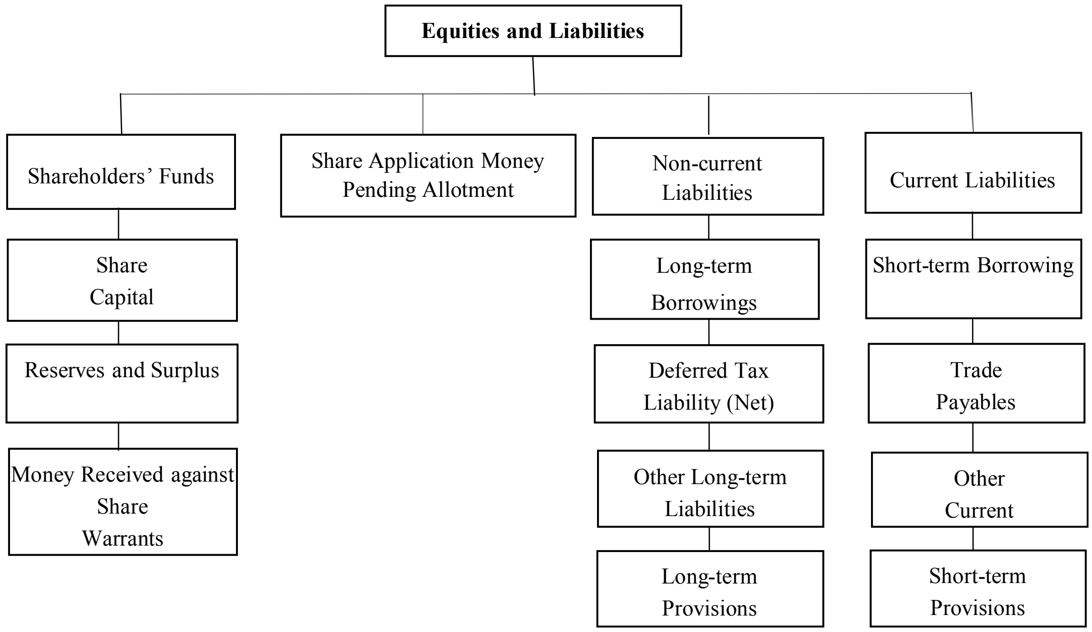


Fig. 2

Break-up of Assets

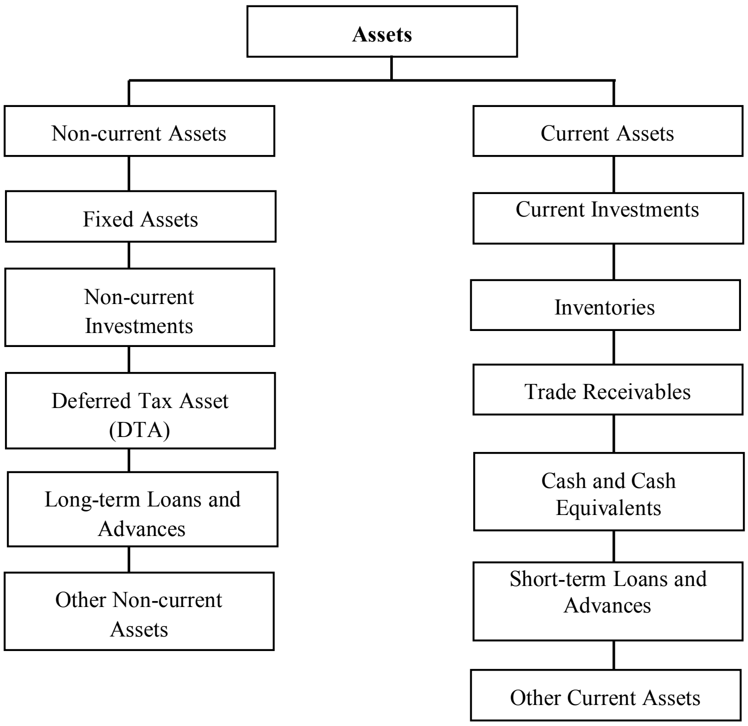


Fig. 3

1.3 Part I: Form of Balance Sheet

Name of the Company:..........................

Balance Sheet as at:..............................

Particulars	**Note**	**Figure as at the End of the Current Reporting Period**	**Figure as at the End of the Previous Reporting Period**
		₹	**₹**
I. Equity and Liabilities:			
1. Shareholder's Funds			
(a) Share Capital			
(b) Reserves and Surplus			
(c) Money Received against Share Warrants			
2. Share Application Money Pending Allotment			
3. Non-current Liabilities:			
(a) Long-term Borrowings			
(b) DTL (Net)			
(c) Other Long-term Liabilities			
(d) Long-term Provisions			
4. Current Liabilities:			
(a) Short-term Borrowings			
(b) Trade Payables			
(c) Other Current Liabilities			
(d) Short-term Provisions			
Total			
II.Assets:			
1. Non-current Assets:			
(a) Fixed Assets:			
(i) Tangible Assets			
(ii) Intangible Assets			
(iii) Capital WIP			
(iv) Intangible Assets under Development			
(b) Non-current Investment			
(c) DTA (Net)			
(d) Long-term Loans and Advances			
(e) Other Non-current Assets			
2. Current Assets			
(a) Current Investments			
(b) Inventories			
(c) Trade Receivables			
(d) Cash and Cash Equivalents			
(e) Other Current Assets			
Total			

Illustration 1: The following information has been extracted from the books of account of Hero Ltd. as at 31st March, 2014.

Particulars	**Dr. (₹ '000)**	**Cr. (₹ '000)**
Administration expenses	480	
Cash at bank and on hand	228	
Cash received on sale of fittings		10
Long-term loan		70
Investments	200	
Depreciation on fixture, fittings, tools and equipment (1st April, 2013)		260
Distribution costs	102	
Factory closure costs	60	
Fixture, fittings, tools and equipment (at cost)	680	
Profit and Loss Account (1st April, 2013)		80
Purchase of equipment	120	
Purchase of goods for resale	1,710	

Sales (Net of Excise Duty)		3,000
Share capital (1,00,000 shares of ` 10 each fully paid)		1,000
Stock (1st April, 2013)	140	
Trade creditors		80
Trade debtors	780	
	4,500	4,500

Additional Information:

(a) The stock at 31st March, 2014 (valued at the lower of cost or net realisable value) was estimated to be worth ₹ 2,00,000.

(b) Fixtures, fittings, tools and equipment all are related to administration. Depreciation is charged at a rate of 20% per annum on cost. A full year's depreciation is charged in the year of acquisition, but no depreciation is charged in the year of disposal.

(c) During the year to 31st March, 2014, the company purchased equipment of ₹ 1,20,000. It also sold some fittings (which had originally cost ₹ 10,000 and for which depreciation of ₹ 30,000 had been set aside.

(d) The average income tax for the company is 50%. Factory closure cost is to be presumed as an allowable expenditure for income tax purpose.

(e) The company proposes to pay a dividend of 20% per equity share.

Prepare Hero Ltd.'s Profit and Loss Account for the year ended 31st March, 2014 and Balance Sheet as at that date in accordance with the Companies Act, 1956 in the Vertical Form along with the Notes on Accounts containing only the significant accounting policies. **(T.Y. BAF, Modified, M.U.)**

Solution: **Hero Ltd.**

Balance Sheet as at 31st March, 2014 **(₹ in '000)**

Particulars	Note No.	As at 31st March, 2014
A. Equity and Liabilities:		
1. Equity:		
(a) Share capital	1	1,000
(b) Reserve and surplus	2	150
(c) Money received against share warrants		
2. Share application money pending allotment		
3. Non-current Liabilities:		
(a) Long-term borrowing	3	70
(b) Deferred tax liabilities (Net)		
(c) Other long-term liabilities		
(d) Long-term provisions		
4. Current Liabilities:		
(a) Short-term borrowings		
(b) Trade payables		
(c) Other current liabilities	4	80
(d) Short-term provisions	5	470
Total (1 + 2 + 3 + 4)		1,770
B. Assets:		
1. Non-current Assets:		
(a) Fixed Assets		
(i) Tangible assets	6	360
(ii) Intangible assets		
(iii) Capital work-in-progress		
(iv) Intangible assets under development		
(b) Non-current investments	7	200
(c) Deferred tax assets (Net)		
(d) Long-term loans and advances		
(e) Other non-current assets		
2. Current Assets:		

(a) Current investment		
(b) Inventories	8	200
(c) Trade receivables	9	780
(d) Cash and cash equivalents	10	228
(e) Short-term loans and advances		
(f) Other current assets		
Total (1 + 2)		1,770

Hero Ltd.

Profit and Loss Statement for the year ended 31st March, 2014 **(₹ in '000)**

Particulars	**Note No.**		**As at 31st March, 2014**
A. Revenue from Operation:	11		3,000
Less: Excise duty			
B. Other Income			3,000
C. Total Revenue (A + B)			
D. Expenses:			
(a) Cost of material consumed			
(b) Purchase of products for sale		1,710	
(c) Charges in inventories of finished goods, work-in-progress and products for sale (140 – 200)		(60)	
(d) Employees cost/benefit expenses			
(e) Finance cost			
(f) Depreciation and amortization expenses		148	
(g) Product development expenses/Engineering expenses			
(h) Other expenses	12	602	
(i) Expenditure transfer to capital and other account			
Total Expenses			2,400
E. Profit before exceptional and extraordinary items and tax (C – D)			600
F. Exceptional items			
G. Profit before tax from continuing operations (E – F)			600
H. Extraordinary items			60
I. Profit before tax from continuing operations (H – I)			540
J. Tax Expenses:			
(a) Current Tax			
(b) Deferred Tax			
K. Profit after tax for the year from continuing operations (G – H)			270
L. Profit (loss) from discontinuing operations			270
Tax expenses from discontinuing operations			
M. Profit (loss) from discontinuing operations (after tax) (J – K)			
N. Profit (loss) for the period (I + L)			270
Balance brought forward from previous year			80
Profit available for appropriation			350
Appropriation:			
Proposed dividend		200	
Transfer to General Reserve		30	230
Balance carried forward			120
O. Earning per equity share:			
(a) Basic			
(b) Diluted			

Note 1: Share Capital

Particulars	As at 31st March, 2014
Authorised, issued, Subscribed and Paid-up Share Capital: 1,00,000 Equity shares of ₹ 10 each	1,000
Total	1,000

Reconciliation of Share Capital

For Equity Share	As at 31st March, 2014	
	Nos.	Amount (₹)
Opening Balance as on 01/01/11 (Figure in '000)	100	1,000
Add: Fresh issue (including bonus shares, right shares, split shares, share issued other than cash)		
Less: Buyback of shares	100	1,000
Total	100	1,000

Note 2: Reserves and Surplus

Particulars	As at 31st March, 2014
General Reserve	30
Profit and Loss A/c	120
Total	150

Note 3: Long-term Borrowings

Particulars	As at 31st March, 2014
Long-term loan	70
Total	70

Note 4: Trade Payables

Particulars	As at 31st March, 2014
Sundry Creditors	80
Total	80

Note 5: Short-term Provisions

Particulars	As at 31st March, 2014
Proposed dividend (20% on ₹ 10,00,000)	200
Provision for Taxation	270
Total	470

Note 6: Tangible Assets

Particulars	As at 31st March, 2014
Fixtures, fitting, tools and equipment at cost – Opening 680 Add: Additions 120 Less: Sale/disposed 30 Less: Depreciation (262 + 148) 408	362
Total	362

Note 7: Non-current Investments

Particulars	As at 31st March, 2014
Investments	200
Total	200

Note 8: Inventories

Particulars	As at 31st March, 2014
Stock	200
Total	200

Note 9: Trade Receivables

Particulars	As at 31st March, 2014
Trade Debtors (more than six months considered good)	780
Total	780

Note 10: Cash and cash operation

Particulars	As at 31st March, 2014
Cash at Bank and on hand	228
Total	228

Note 11: Revenue from operation

Particulars	As at 31st March, 2014
Sales (net of Excise Duty)	3,000
Total	3,000

Note 12: Other Expenses

Particulars	As at 31st March, 2014
Administrative Expenses	480
Distribution Expenses	102
Loss on sale of Fixed Assets	20
Total	602

Working Notes: **(₹ in '000)**

Particulars	(₹)	(₹)
(1) Tangible Assets:		
Furniture and Fixture		
Gross Block		
As on 1/4/2012	680	
Add: Additions during the year	120	
	800	
Less: Deductions during the year	60	

	As on 31/3/2013		740
	Depreciation		
	As on 1/4/2012	260	
	For the year (20% on 740	148	
		408	
	Less: Deduction during the year	30	
	As on 31/3/2013		378
	Net block as on 31/3/2013		362
(2)	Provision for taxation		
	Profit as per profit and loss account		540
	Add back: Loss on sale of asset (short-term capital loss)	20	
	Depreciation	148	
			168
			708
	Less: Depreciation under Income Tax Act		168
			540
	Provision for tax @ 50%		270

It has been assumed that depreciation calculated under Income Tax Act amounts to ₹ 1,68,000.

Chapter 2

Analysis and Interpretation of Account

FINANCIAL STATEMENTS

A financial statement is a compilation of data, which is logically and consistently organised according to accounting principles. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment in time, as in the case of a balance sheet, or may reveal a series of activities over a given period of time, as in the case of an income statement. Financial statements are the major means through which firms present their financial situation to stockholders, creditors, and the general public. The majority of firms include extensive financial statements in their annual reports, which receive wide distribution.

Financial Statements

- Balance Sheet
- Income Statement
- Cash Flow Statement
- Others
  1. Board's Report
  2. Director's Responsibilities
  3. Management Discussion and Analysis
  4. Auditor's Report
  5. Report on Corporate Governance
  6. Accounting Policies
  7. Segment Report

The Nature of Financial Statement Analysis

Financial statement analysis consists of the application of analytical tools and techniques to the data in financial statements in order to derive from them measurements and relationships that are significant and useful for decision-making. The process of financial analysis can be described in various ways depending on the objectives to be obtained. Financial analysis can be used as a preliminary screening tool in the selection of stocks in the secondary market. It can be used as a forecasting tool of future financial conditions and results. It may be used as a process of evaluation and diagnosis of managerial, operating, or other problem areas. Above all, financial analysis reduces reliance on intuition, guesses and thus narrows the areas of uncertainty that is present in all decision-making processes. Financial analysis does not lessen the need for judgement but rather establishes a sound and systematic basis for its rational application.

Sources of Financial Information

The financial data needed in the financial analysis come from many sources. The primary source is the data provided by the firm itself in its annual report and require disclosures. The annual report comprises the income statement, the balance sheet, and the statement of cash flows, as well as footnotes to these statements. Besides this, information such as the market prices of securities of publicly traded corporations can be found in the financial press and the electronic media daily. The financial press also provides information on stock price indices for industries and for the market as a whole.

The development of this chapter on financial statement analysis is carried out with the help of balance sheets and profit and loss accounts.

The Principal Tools of Analysis

In the analysis of financial statements, the analyst has a variety of tools available from which he can choose those best suited to his specific purpose. The following are the important tools of analysis:

1. Ratio analysis
2. Funds flow analysis
3. Cash flow analysis, etc.

Methods Used in Analysis of Financial Statements or Tools of Analysis in Financial Statements

Financial statements when analysed of one year are not much meaningful. In order to arrive at reasonable conclusions, financial statements should be analysed with reference to earlier years or with reference to other similar company. For such study, following tools are:

1. Comparative Statement
2. Common Size Statement
3. Trend Analysis.

In this chapter, we are discussing first three tools only.

1. COMPARATIVE STATEMENTS

It includes comparative Income Statement and comparative Balance Sheet. The statement gives information about the comparative preference of the company over different years. Profitability and financial position can be formed very well by making comparison between two year's financial statement of same company or by making comparison between two different companies (inter-firm comparison).

Example: Comparison between years 2013 and 2014 of R Ltd. and comparison between two companies A Ltd. and B Ltd. (same line of business).

They are presented in the following form:

M/s ___________________

Comparative Statement

No.	Particulars	2013 ₹	2014 ₹	Increase/Decrease ₹	Increase/Decrease %
1	Net Sales	50,000	70,000	20,000	40.00
2	Cost of Goods Sold	35 000	40 000	5,000	14.29
3	Gross Profit (1 – 2)	15,000	30,000	15,000	100.00
4	Operating Expenses	7.000	4000	(3,000)	(42.86)
5	Net Profit	8,000	26,000	18,000	225.00
1	Shareholders' Funds	1,00,000	1,00,000	–	–
2	Fixed Assets	80,000	60,000	(20,000)	(25.00)
3	Working Capital	15,000	18,000	3,000	20.00

Rupees Column = Year 2014 – Year 2013 = + Increase/(–) Decrease

% Column $= \dfrac{\text{Year 2014} - \text{Year 2013}}{\text{Year 2013}} \times 100$ = + Increase %/(–) Decrease %

Advantages of Comparative Statements:

1. They are very useful as it gives information about the nature of changes in financial position and performance of an enterprise over the years.
2. These statements gives information about weakness and soundness of an enterprise, with respect to liquidity, solvency and profitability.
3. These statements help the management in forecasting and planning.

Limitations of Comparative Statements:

1. Comparison are not possible:
   (A) When accounting principles are not followed consistently.
   (B) When two periods are at normal periods (i.e., one normal and other abnormal).
   (C) Inter-firm comparison cannot be made unless they are of the same line.

2. COMON SIZE STATEMENTS

Meaning

Common size statement is another technique for financial analysis and interpretation which is also called as Vertical Technique, as against the comparative statement, which is called as the Horizontal Technique of comparison. It includes common size Income Statements and common size Balance Sheet.

This is useful when only one year financial statement is to be studied and conclusions are to be drawn.

Here, the actual size of the statement is converted into common size, i.e., 100. Size means the total of the statement. Therefore, the size of all statements becomes equal, i.e., 100 and so the technique is called the common size statement. The other items of which the total is made are also reduced proportionately. So, common size statements are nothing but the financial statements presented in percentage form.

Procedure to Convert Actual Statements to Common Size Statement

(a) Profit and Loss A/c

Here, the Net Sales to be taken as equal to 100 and the other items to be proportionately reduced. The formula is amount of the item divided by sale multiplied by 100.

Example: If sale is ₹ 1,00,000, cost of sale is ₹ 60,000.

So, the sale is to be taken = 100%

$$\text{Now, cost of sale} = \frac{60{,}000 \times 100}{1{,}00{,}000} = 60\%$$

In this way, the other items of Profit and Loss A/c are to be converted.

(b) Balance Sheet

In case of Balance Sheet, firstly it is to be converted in vertical form. Then the total funds are to be taken as equal to 100 and other items like proprietor's fund, long-term liabilities, fixed assets, working capital are to be converted proportionately.

$$\text{The Formula :} \quad \frac{\text{Amount of item to be converted}}{\text{Total funds}} = 100$$

With the help of common size statement, the comparison between the items of the statement can be made easily and conclusion can be drawn.

Also the comparison between the same item of two different statements can be made easily.

Example: Gross profit of 2012.

3. TREND ANALYSIS

Meaning

It is a another simplified technique of analysis of financial data. In this case, out of several years, 1st year is considered as the base year. All the figures of base year are considered as 100 and the figures of subsequent years are expressed as a percentage of base year.

Example: (Practical Example)

Trend Analysis

No.	Particulars	Rupees				% in Rupees			
		2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
1	Net Sales	1,000	1,200	1,500	1,250	100	120	150	125
2	Cost of Goods Sold	700	750	900	800	100	107.14	128.57	114.29
3	Gross Profit	300	450	600	450	100	150	200	150

1. First year is taken as base year, i.e., 100.
2. Second and subsequent years are expressed in percentages on the basis of base year.

$$\% = \frac{\text{Year Under Study}}{\text{Base Year}} \times 100$$

3. Common Size Balance Sheet is prepared in same manner.

Advantages of Trend Analysis

1. It is more reliable and accurate because it is based on percentages and not on absolute figures.
2. This method is considered as very useful for analysing the financial statement than other techniques because it takes more than 2 years. So, we can say it as quick technique of analysis.

Limitations of Trend Analysis

1. There is always the danger of selecting the base year which may be wrong.
2. Trend percentage is affected when accounts are not drawn on a consistent basis (different accounting policies).

M/s_____________________

Financial Position Statement as on ______________

Particulars	₹	₹	₹
I. Sources of Funds:			
1. Shareholders' Fund (Owned Fund)			
Equity Share Capital (Called-up Capital)		X	
Less: Calls in Arrears		X	
		X	
Add: Shares Forfeited		X	
		X	
Preference Share Capital (Called-up Capital)		X	
		X	
Add: Reserves and Surplus:			
General Reserve	X		
Capital Reserve	X		
Capital Redemption Reserve	X		
Securities Premium	X		
Dividend Equalisation Reserve	X		
Investment Fluctuation Reserve	X		
Workmen Compensation Fund	X		
Insurance Fund	X		
Provident Fund	X		
Foreign Project Reserve	X		
Debenture Redemption Reserve	X		
Profit and Loss Account (Cr. Balance)	X		
Sinking Fund	X	X	
		X	
Less: Fictitious Assets (Miscellaneous Expenditure not written off)			
Preliminary Expenses	X		

Underwriting Expenses	X		
Discount on Issue of Shares/Debentures	X		
Issue Expenses not written off	X		
Deferred Revenue Expenditure	X		
Research and Development Expenditure	X		
Interest Paid out of Capital During Construction Period	X		
Profit and Loss Account (Dr. Balance)	X	(X)	X
2. Long-term Liabilities (Owned Fund/Borrowed Funds)			
Debentures		X	
Bank Loans (Secured/Unsecured Loans)		X	
Loan from Financial Institutions		X	
Deposits		X	
Public Deposits		X	
Bonds		X	X
3. Net Fund Employed (1 + 2) (Total Fund Available)			**X**
II. Application of Funds:			
1. Fixed Assets:			
Goodwill		X	
Patent Rights		X	
Copy Right		X	
Trade Mark		X	
Technical Know-how		X	XXX
Land and Building		X	
Plant and Machinery		X	
Furniture and Fittings		X	
Livestock		X	
Vehicles		X	
Motor Car		X	
Equipments		X	
Leasehold Property		X	
Freehold Property		X	
Railway Sidings		X	
		X	
Less: Provision for Depreciation		X	X
2. Investments:			
Investment ion Government Bonds/Shares/Debentures			
Provident Fund Investment (Net) (Investment Exceeds Funds)			
3. Working Capital			
(A) Current Assets (Quick Assets + Non-quick Assets)			
Marketable Investment (Short-term)	X		
Cash and Bank Balance	X		
Debtors	X		
Bills Receivable	X		
Quick Assets:	XXX		
Closing Stock (Raw Material, W.I.P., Finished Goods, Spare Parts)	X		
Prepaid Expenses	X		
Advance Given	X		
Advance Tax	X		
		X	

Less: (B) Current Liabilities: (Quick Liabilities + Non-quick Liabilities)			
Creditors	X		
Bills Payable	X		
Outstanding Expenses	X		
Provision for Tax	X		
Quick Liabilities:	XXX		
Bank Overdraft	X		
		(X)	X
4. Net Assets Owned (1 + 2 + 3)/(Total Funds Employed)			**X**

M/s______________________________

Income Statement for the year ended _____________

Particulars	**₹**	**₹**	**₹**
1. Sales:			
Cash Sales		X	
Credit Sales		X	
		X	
Less: Sales Return and Allowances		X	X
2. *Less:* Cost of Goods Sold:			
Opening Stock		X	
Add: Purchase (*Less* Purchase Return)		X	
Add: Direct Expenses			
Carriage Inward	X		
Freight Inwards	X		
Octroi Duty	X		
Import Duty	X		
Loading and Unloading Charges	X		
Commission on Purchase	X	X	
Add: Manufacturing/Factoring Expenses			
Direct Wages	X		
Motive Power	X		
Factory Rent and Rates	X		
Factory Insurance	X		
Gas and Water Charges	X		
Royalties on Production	X		
Excise Duty	X		
Depreciation on Plant and Machinery	X		
Depreciation on Factory Building	X		
Loose Tools written off	X		
Patents/Patterns written off	X		
Factory Repairs	X		
Stores Consumed	X		
Bonus to Workers	X	X	
Less: Closing Stock	X		
Goods Damaged by Fire	X		
Goods Sent on Consignment	X		
Goods Sent to Branch	X		
Goods to Transit	X	(X)	(X)
3. Gross Profit (1 – 2)			X

4. Operating Incomes:			
Discount Received (Discount on Purchases)		X	
Bad Debts Recovered		X	X
5. Operating Expenses (A + B + C)			X
(A) Office and Administrative Expenses:			
Salaries	X		
Office Rent	X		
Insurance	X		
Printing and Salaries	X		
Postage and Telegram	X		
Telephone Charges	X		
Audit Fees	X		
Legal Fees	X		
Director's Fees	X		
Depreciation on Office Building/Furniture/Equipment	X		
Repairs to Office Building/Furniture	X		
Sundry Expenses	X		
Conveyance	X		
Rates and Taxes	X		
Electricity Charges	X	X	
(B) Selling and Distribution Expenses:			
Advertisements	X		
Commission on Sales	X		
Salesman Salary	X		
Depreciation on Delivery Van/Motor Car	X		
Carriage Outward	X		
*Bad Debts	X		
Showroom Rent	X		
Exhibition Expenses	X		
Warehouse Rent/Insurance/Repairs	X		
*Discount Allowed	X		
Sales Promotion Expenses	X		
After Sales Service Expenses	X		
Trade Fair Expenses	X		
Travelling Expenses	X	X	
(C) Finance Expenses:			
*Interest on Debentures	X		
*Interest on Loans	X		
*Interest on Overdraft	X		
Cash Discount	X		
Discount on Bills of Exchange	X		
Rebate on Bills of Exchange	X		
Bank Charges	X		
Bank Commission	X		
Loss on Issue of Shares written off	X		
Commission to Raise Loans	X	X	(X)
6. Operating Profit (3 + 4 – 5)			X
7. Non-operating Income:			
Dividend and Interest on Investments		X	

	Commission Received		X	
	Rent Received		X	
	Share Transfer Fees		X	
	Profit on Sale of Assets/Investments		X	
	Royalty Received		X	X
8.	**Non-operating Expenses:**			X
	Loss on Sale of Assets/Investments		X	
	Loss by Fire/Theft/Accident		X	
	Goodwill written off		X	
	Preliminary Expenses written off		X	
	Under Writing Commission written off		X	
	Fine or Penalty for Breach of Law		X	
	Issue Expenses written off		X	(X)
9.	**Net Profit before Tax (6 + 7 – 8)**			X
	Less: Provision for Tax			(X)
10.	**Net Provision after Tax**			X
	Add: Operating Retained Earning b/d			X
	Profit Available for Tax Appropriation			X
	Less: Proposed Dividend (Equity/ Preference Shares)		X	
	Transfer to Reserve		X	
	Interim Dividend		X	
	Closing Retained Earning c/d			**X**

Illustration 1: From the following balances, prepare balance sheet in vertical form as on 31st March, 2014.

Particulars	₹
Equity Share Capital	5,000
Preference Share Capital	3,000
General Reserve	2,000
Profit and Loss A/c (Cr.)	1,000
Fixed Capital	8,000
Current Assets	4,000
Current Liabilities	3,000

(T.Y. B.Com., Modified)

Solution: **Financial Position Statement as on 31 March, 2014**

No.	Particulars		₹	₹
I.	**Sources of Funds:**			
1.	Shareholders' Funds:			
	Equity Share Capital		5,000	
	Preference Share Capital		3,000	
			8,000	
	Add: Reserves and Surplus:			
	General Reserve	2,000		
	Profit and Loss A/c	1,000	3,000	
			11,000	
	Less: Fictitious Assets – Preliminary Expenses		1,500	9,500
2.	Long-term Liabilities:			
	Debentures			500
3.	Net Fund Employed (1 + 2)			**10,000**
II.	**Application of Funds:**			
1.	Fixed Assets			8,000
2.	Investments			1,000
3.	Working Capital (A – B)			

	(A) Current Assets		4,000	
	(B) Current Liabilities		3,000	1,000
4.	Net Assets Owned (1 + 2 + 3)			**10,000**

Illustration 2:

Liabilities	₹	Assets	₹
Equity Share Capital	3,90,000	Cash in Hand	15,000
10% Preference Share Capital	2,00,000	Cash at Bank	90,000
9% Debentures	2,50,000	Preliminary Expenses	20,000
General Reserve	60,000	Goodwill	1,00,000
Capital Reserve	50,000	Building	3,00,000
11% Bank Loan	1,00,000	Investment (Long-term)	2,00,000
Creditors	1,25,000	Furniture	2,50,000
Bank Overdraft	1,35,000	Plant and Machinery	3,00,000
Provision for Tax	1,40,000	Debtors	1,50,000
Proposed Dividend	30,000	Prepaid Expenses	50,000
Profit and Loss A/c	1,40,000	Stock	2,00,000
Depreciation Provision	80,000	Calls in Arrears (Equity)	10,000
		Commission on Issue of Shares	15,000
	17,00,000		**17,00,000**

Present the above Balance Sheet in Vertical form and show the following: (1) Net worth, (2) Borrowed fund, (3) Capital employed, (4) Net block, (5) Working capital and (6) Fictitious assets.

(T.Y. B.Com., Modified)

Solution: **Financial Position Statement as on 31 March, 2014**

No.	Particulars	₹	₹	₹
I.	**Sources of Funds**			
1.	Shareholder's Funds/Net worth:			
	(a) Share Capital:			
	Equity Share Capital	3,90,000		
	Less: Calls in Arrears	10,000	3,80,000	
	10% Preference Share Capital		2,00,000	
			5,80,000	
	(b) Reserves:			
	General Reserve	60,000		
	Capital Reserve	50,000		
	P & L A/c	1,40,000	2,50,000	
			8,30,000	
	(c) Fictitious Assets:			
	Preliminary Expenses	20,000		
	Commission on Issue of Shares	15,000	35,000	7,95,000
2.	Long-term Liabilities:			
	9% Debentures		2,50,000	
	11% Bank Loan		1,00,000	3,50,000
3.	Net Fund Employed (1+2)			**11,45,000**
II.	**Application on Funds:**			
1.	Fixed Assets:			
	Gross block		1,00,000	
	Goodwill			
	Building	3,00,000		
	Plant and Machinery	3,00,000		
	Furniture	2,50,000		
		8,50,000		
	Less: Depreciation furniture	80,000	7,70,000	8,70,000
2.	Investment (Long-term)			2,00,000
3.	Working Capital:			
	Current Assets:			

	Cash in Hand		15,000		
	Cash at Bank		90,000		
	Debtors		1,50,000		
	Quick Assets:		2,55,000		
	Prepaid Expenses		50,000		
	Stock		2,00,000		
		(A)		5,05,000	
	Current Liabilities:				
	Creditors		1,25,000		
	Provision for Tax		1,40,000		
	Propose Dividend		30,000		
	Quick Liabilities:		2,95,000		
	Bank Overdraft		1,35,000		
		(B)		4,30,000	
		(A – B)			75,000
4.	Net Assets Owned (1 + 2 + 3)				**11,45,000**

Illustration 3: Following is the Profit and Loss Account of Well-balanced Limited for the year ended 31st March, 2014. You are required to prepare vertical income statement for purpose of analysis.

Particulars	₹	Particulars	₹	₹
To Opening Stock	7,00,000	By Sales		
To Purchases	9,00,000	Cash	5,20,000	
To Wages	1,50,000	Credit	15,00,000	
To Factory Expenses	3,50,000		20,20,000	
To Office Salaries	25,000	*Less:* Returns and Allowances	20,000	20,00,000
To Office Rent	39,000	By Closing Stock		6,00,000
To Postage and Telegram	5,000	By Dividend on Investment		10,000
To Director's Fees	6,000	By Profit on Sale of Furniture		20,000
To Salesman Salaries	12,000			
To Advertising	18,000			
To Delivery Expenses	20,000			
To Debenture Interest	20,000			
To Depreciation:				
on Office Furniture	10,000			
on Plant	30,000			
on Delivery Van	20,000			
To Loss on Sale of Van	5,000			
To Income Tax	1,75,000			
To Net Profit	1,45,000			
	26,30,000			**26,30,000**

(T.Y. B.Com., Modified)

Solution: **M/s Well-balanced Ltd.**

Income Statement as on 31st March, 2014

No.	Particulars	₹	₹	₹
1.	Net Sales:			
	Cash		5,20,000	
	Credit		15,00,000	
			20,20,000	
	Less: Return and Allowances		20,000	20,00,000
2.	Cost of Goods Sold:			
	Opening Stock	7,00,000		

	Add: Purchases	9,00,000		
	Wages	1,50,000		
	Factory Expenses	3,50,000		
	Depreciation on Plant	30,000	21,30,000	
	Less: Closing Stock		6,00,000	15,30,000
3.	Gross Profit (1 – 2)			4,70,000
4.	Operating Expenses:			
	Office and Administration Expenses			
	Office Salaries	25,000		
	Office Rent	39,000		
	Postage and Telegram	5,000		
	Director's Fees	6,000		
	Depreciation on Office Furniture	10,000	85,000	
	Selling and Distribution Expenses:			
	Salesman's Salary	12,000		
	Advertising	18,000		
	Delivery Expenses	20,000		
	Depreciation on Delivery Van	20,000	70,000	
	Finance Expenses:			
	Debenture Interest		20,000	1,75,000
5.	Operating Profits (3 – 4)			2,95,000
6.	Non-operating Income:			
	Dividend on Investment		10,000	
	Profit on Sale of Furniture		20,000	30,000
7.	Non-operating Expenses:			
	Loss on Sale of Van			5,000
8.	Net Profit before Tax			3,20,000
	Less: Income Tax			1,75,000
9.	Net Profit after Tax			1,45,000

Illustration 4: The accountant of company submits the following financial statements for 2014.

Trading and Profit Loss A/c for the year ended 31st December, 2013

Expenses	₹	Income	₹
To Opening Stock	35,000	By Sales	8,30,000
To Purchase	7,50,000	By Closing Stock	80,000
To Gross Profit	1,25,000		
	9,10,000		**9,10,000**
To Depreciation	18,000	By Gross Profit	1,25,000
To Other Expenses	37,000	By Interest	5,000
To Tax Provision	20,000		
To Proposed Dividend	8,000		
To Net Profit	47,000		
	1,30,000		**1,30,000**

Balance Sheet as on December 2013

Liabilities	₹	Assets	₹
Share Capital	1,50,000	Cash	24,000
Bank Overdraft	19,000	Stock	80,000
Creditors	13,000	Debtors	69,250
Depreciation Provision	27,875	Land and Buildings	46,075

Tax Provision	20,000	Machinery/Equipment	64,300
Proposed Dividend	8,000	Prepaid Expenses	750
Profit and Loss A/c	90,000	Goodwill	10,000
		Preliminary Expenses	3,500
		Loans	30,000
	3,27,875		**3,27,875**

Rearrange the above in a form suitable to analysis. **(T.Y. B.Com., Modified)**

Solution: **Income Statement as on 31st March, 2013**

No.	Particulars	₹	₹	₹
1	Net Sales			8,30,000
2	Cost of Goods Sold:			
	Opening Stock		35,000	
	Add: Purchases		7,50,000	
			7,85,000	
	Less: Closing Stock		80,000	7,05,000
3	Gross Profit (1 – 2)			1,25,000
4	Operating Expenses:			
	Depreciation		18,000	
	Other Expenses		37,000	55,000
5	Operating Profit (3 – 4)			70,000
6	Non-operating Income:			
	Interest			5,000
7	Net Profit before Tax			75,000
	Less: Tax Provision			20,000
8	Net Profit after Tax			55,000
	Less: Proposed Dividend			8,000
9	Closing Stock Earnings c/d			47,000

Financial Position Statement as on 31st December, 2013

No.	Particulars	₹	₹	₹
I.	**Sources of Funds:**			
1	Shareholders' Funds:			
	Share Capital		1,50,000	
	Add: Reserves and Surplus:			
	Profit and Loss A/c		90,000	
			2,40,000	
	Less: Fictitious Assets:			
	Preliminary Expenses		3,500	2,36,500
2	Long-term Liabilities			–
3	Net Fund Employed (1 + 2)			**2,36,500**
II.	**Application of Funds:**			
1	Fixed Assets:			
	Goodwill		10,000	
	Land and Buildings		46,075	
	Machinery/Equipment		64,300	
			1,20,000	
	Less: Depreciation		27,875	92,500
2	Working Capital (A – B)			

	(A) Current Assets:				
	Cash		24,000		
	Debtors		69,250		
	Loans		30,000		
	Quick Assets:		1,23,250		
	Stock		80,000		
	Prepaid Expenses		750		
		(A)		2,04,000	
	(B) Current Liabilities:				
	Creditors		13,000		
	Tax Provision		20,000		
	Proposed Dividend		8,000		
	Quick Liabilities:		41,000		
	Bank Overdraft		19,000		
		(B)		60,000	1,44,000
3	Net Assets Owned (1 + 2)				**2,36,500**

Illustration 5: The following information regarding Maruti Car Ltd. for the year ended 31st March, 2014 is given to you.

Particulars	₹
Sales	75,00,000
Purchases	50,00,000
Opening Stock (01/04/2006)	5,00,000
Closing Stock (31/03/2013)	7,50,000
Return Inward	75,000
Carriage Outward	57,000
Carriage Inward	50,000
Return Outward	50,000
Salesman Salary	75,000
Advertising and Publicity	2,52,000
Salesman Travelling Allowance	7,500
Office Salary	4,00,000
Computer Repairs and Maintenance	84,000
Rent, Rates and Taxes	4,000
Printing and Stationary	400
Bad Debts	75,750
Purchase of Computer	40,000
Dividend of Shares (Cr.)	10,000
Staff Welfare Expenses	44,000
Interest (Dr.)	50,000
Loss on Sales of Shares	1,25,000

Rearrange above information in vertical form suitable for analysis. **(T.Y. B.Com., Modified)**

Solution:

M/s Maruti Car Ltd.

Income Statement for the year ended 31st March, 2014

No.	Particulars	₹	₹	₹
1	Net Sales:			
	Sales		75,00,000	
	Less: Return Inward		75,000	74,25,000
2	Cost of Goods Sold:			
	Opening Stock		5,00,000	
	Add: Purchases	50,00,000		
	Less: Return Outward	50,000	49,50,000	

	Carriage Inward			50,000	
				55,00,000	
	Less: Closing Stock			7,50,000	47,50,000
					26,75,000
3	Gross Profit (1 – 2)				
4	Operating Expenses: (A + B + C)				
	(A) Office and Administrative Expenses:				
	Office Salary		4,00,000		
	Computer Repairs and Maintenance		84,000		
	Rent, Rates and Taxes		4,000		
	Printing and Stationary		400		
	Staff Welfare Expenses		44,000	5,32,400	
	(B) Selling and Distribution Expenses:				
	Carriage Outward		57,000		
	Salesman Salary		75,000		
	Advertising and Publicity		2,52,000		
	Salesman Travelling Allowances		7,500		
	Bad Debts		75,750	4,67,250	
	(C) Finance Expenses:				
	Interest			50,000	10,49,650
5	Operating Profit (3 – 4)				16,25,350
6	Non-operating Income: Dividend on Shares				10,000
7	Non-operating Expenses: Loss on Sale of Shares				1,25,000
8	Net Profit (5 + 6 – 7)				15,10,350

Illustration 6: Complete the following Income Statement for the year ended 31st March, 2008

Particulars	₹
Net Sales	?
Less: Cost of Goods Sold	?
Gross Profit (25% of Sales)	2,00,000
Less: Operating Expenses	?
Operating Net Profit	?
Add: Non-operating Income	Nil
Less: Non-operating Expenses	40,000
Net Profit before Tax	40,000
Less: Income Tax (50%on NPBT)	?
Net Profit after Tax	?

(T.Y. B.Com., Modified)

Solution:

Particulars	₹
Net Sales	8,00,000
Less: Cost of Goods Sold	6,00,000
Gross Profit (25% of Sales)	2,00,000
Less: Operating Expenses	1,20,000
Operating Net Profit	80,000
Add: Non-operating Income	Nil
Less: Non-operating Expenses	40,000
Net Profit before Tax	40,000
Less: Income Tax (50%)	20,000
Net Profit after Tax	20,000

Illustration 7: Classify the following accounts and state whether it is:

(i) Current Assets
(ii) Fixed Assets
(iii) Current Liabilities
(iv) Long-term Liabilities
(v) Shareholders' Fund
(vi) None of these

(a) Delivery truck
(g) Trade mark
(b) Accounts payable
(h) Short-term investment

(c) Bills payable (90 days)
(d) Delivery Expenses
(e) Equity Capital
(f) Prepaid insurance
(i) Income tax payable
(j) Debenture redeemable after seven years
(k) Tsunami relief fund deducted from employee's salary
(l) Depreciation

Solution:

(i) Current Assets : Prepaid insurance, Short-term investment
(ii) Fixed Assets : Delivery truck, Trade mark
(iii) Current Liabilities : Accounts payable, Bills payable (90 days), Income tax payable, Tsunami relief fund deducted from employee's salary
(iv) Long-term Liabilities : Debenture redeemable after seven years
(v) Shareholder's Fund : Equity capital
(vi) None of these : Delivery expenses, Depreciation

Illustration 8: The following balances appear in the books of M/s Bhushan Ltd. for the year ended 31st March 2011. You are required to prepare a Revenue statement in a vertical form.

Dr. **Cr.**

Particulars	₹	Particulars	₹
Opening Stock	50,000	Sales Return	20,000
Net Profit b/f from P.Y.	60,000	Profit on Sale of Investment	5,000
Office Rent	5,000	Loss by Fire	5,000
Carriage Inward	20,000	Closing Stock	40,000
General Reserve	40,000	Purchases	2,00,000
Wages	72,000	Postage and Telegram	5,000
Octroi	5,000	Provision for Tax	30,000
Office Staff Salaries	40,000	Sales	6,20,000
Audit Fees	20,000	Dividend on Shares Held	25,000
Advertisement	25,000	Carriage Outward	5,000
Finance Expenses	25,000	Warehouse Expenses	5,000
Loss on Sale of Asset	30,000	Import Duty	3,000
Depreciation:		Proposed Dividend	35,000
Plant and Machinery	15,000		
Furniture	16,000		
Delivery Van	14,000		

(T.Y. B.Com., Modified)

Solution:

M/s Bhushan Ltd.
Revenue Statement for the year ended 31st March, 2011

Particulars	₹	₹	₹
Sales		6,20,000	
Less: **Sales Returns**		20,000	
Net Sales			6,00,000
Less: **Cost of Goods Sold**			
Opening Stock		50,000	
Add: Purchases		2,00,000	
Carriage Inwards		20,000	
Octroi		5,000	
Import Duty		3,000	
Less: Closing Stock		2,78,000	
		40,000	
		2,38,000	
Less: **Operating Expenses:**			
Wages		72,000	
Debentures on Machinery		15,000	3,25,000
Gross Profit			2,75,000

Warehouse Expenses	5,000		
Staff Salaries	40,000		
Audit Fees	20,000		
Postage and Telegram	5,000		
Depreciation	30,000	1,00,000	
Finance Expenses		25,000	
Selling and Distribution Expenses:			
Advertisement	25,000		
Carriage Outward	5,000		
Warehouse Expenses	5,000	35,000	
		–	1,60,000
Operating Profit			1,15,000
Add: Non-operating Income			
Divided on Shares Held		25,000	
Profit on Sale of Investment		5,000	30,000
			1,45,000
Less: **Non-operating Expenses and Losses:**			
Loss on Sale of Asset		30,000	
Loss by Fire		5,000	35,000
Net Profit before Tax			1,10,000
Less: Provision for Tax			30,000
Net Profit after Tax			80,000
Add: Net Profit b/f from P.Y.			60,000
			10,40,000
Less: Transfer to general Reserve		40,000	
Proposed Dividend		35,000	75,000
Balance Carried to Balance Sheet			65,000

Illustration 9: Following are the balances as on 31-03-2010 in the books of accounts of Ratnagiri Mango Products Ltd. You are required to prepare a vertical Balance Sheet from the same.

Particulars	₹
T.D.S. (Staff Salaries)	25,000
Share Issue Expenses	20,000
Land and Building	5,00,000
10% Debentures	3,00,000
Trade Investment	2,00,000
Creditors	8,80,000
Plant and Machinery	3,70,000
Calls-in-arrears	10,000
Profit and Loss A/c (Cr. Balance)	3,85,000
Patents	50,000
Stock	4,35,000
Debtors	9,25,000
Equity Share Capital	5,00,000
Bank Overdraft	4,20,000

(T.Y. B.Com., Modified)

Solution:

Ratnagiri Mango Products Ltd.
Balance Sheet as on 31.03.2010

Particulars		₹	₹
I. SOURCES OF FUND			
1. Shareholders' Fund			
(a) Share Capital			
Equity Share Capital		5,00,000	
Less: Calls-in-arrears		10,000	
		4,90,000	
(b) Reserves and Surplus			
Profit and Loss Account		3,85,000	

(c) Miscellaneous Expenditure			
Less: Share Issue Expense		20,000	
Net Worth (a + b – c)			8,55,,000
2. Loan Fund			
(a) Secured Loans			
10% Debentures		3,00,000	
(b) Unsecured Loans		Nil	3,00,000
Total			**11,55,000**
II. APPLICATIONS OF FUNDS			
1. Fixed Assets			
Land and Building		5,00,000	
Plant and Machinery		3,70,000	
Patents		50,000	9,20,000
2. Investments			
Trade Investment			2,00,000
3. Working Capital			
(a) Current Assets			
Stock	4,35,000		
Debtors	9,25,000		
Total Current Assets		13,60,000	
(b) Current Liabilities			
T.D.S.	25,000		
Creditors	8,80,000		
Bank Overdraft	4,20,000		
Total Current Liabilities		13,25,000	
Working Capital (A – B)			35,000
Total (I – II – III)			**11,55,000**

Illustration 10: Following are the balances as on 31-3-2010 in the books of accounts of Mangaon Machines Ltd. You are required to Prepare a Vertical Balance sheets from the same.

Particulars	₹
Capital Work-in-progress	2,80,000
15% Term Loan	6,00,000
Marketable Investment	1,00,000
MVAT Payable	84,000
Land and Building	8,40,000
Creditors	7,75,000
Bank Balance (Dr. Balance)	35,000
Provision for Depreciation	2,51,000
TDS (Rent Paid)	20,000
Debtors	8,15,000
Equity Share Capital	5,00,000
Plant and Machinery	4,50,000
Stock	2,70,000
Rent Received in Advance	1,00,000
Preliminary Expenses	10,000
Profit and Loss A/c (Cr. Balance)	4,70,000

Solution:

Mangaon Machines Ltd.
Balance Sheet as on 31st March, 2010

Particulars	₹	₹	₹
I. SOURCES OF FUNDS			
1. Shareholders' Funds			
A. Capital			
Equity Share Capital		5,00,000	
B. Reserves and Surplus			
Profit and Loss A/c	4,70,000		

***Less:* Fictitious Assets**			
Preliminary Expenses	(10,000)		
Net Reserves and Surplus		4,60,000	
Own Funds or Net Worth			9,60,000
2. Loan Funds			
A. Secured/Long-term Loans			
15% Term Loan		6,00,000	
B. Unsecured Loans		Nil	6,00,000
3. Capital Employed			**15,60,000**
II. APPLICATION OF FUNDS			
1. Fixed Assets			
A. Tangible			
Land & Buildings	8,40,000		
Plant & Machinery	4,50,000		
Less: Provision for Depreciation	(2,51,000)	10,39,000	
Capital Work-in-progress		2,80,000	
Net Tangible Assets		13,19,000	
B. Intangible		Nil	13,19,000
2. Long-term Investments			Nil
3. Working Capital			
(i) Liquid Assets:			
Debtors	8,15,000		
Marketable Investment	1,00,000		
Bank Balance	35,000		
Stock	2,70,000		
Other Current Assets	Nil		
(ii) Inventory	Nil		
A. Current Assets		12,20,000	
B. *Less:* Current Liabilities			
Creditors	7,75,000		
MVAT Payable	84,000		
TDS	20,000		
Rent Received in Advance	1,00,000		
Total Quick Liabilities	9,79,000		
Non-quick Liabilities	Nil		
Current Liabilities		9,79,000	
Working Capital (A – B)			2,41,000
4. Capital Employed			15,60,000

Illustration 11: Following balances are extracted from the books of Tax and Trouble Limited for the year ended 31-03-2014. You are required to prepare Vertical Income Statement and Vertical Balance Sheet after considering other information provided:

Particulars	**₹**
Premises	3,07,500
Machinery	3,60,000
Interim Dividend Paid	7,500
Purchases	1,80,000
Preliminary Expenses	5,000
Carriage Inward	13,100
Director's Fees	5,740
Bad Debts	2,110
6% Debentures	3,00,000
Profit and Loss A/c (Cr.) Balance	14,500
Creditors	40,000
Outstanding Expenses	10,000
General Reserve	25,000
4% Government Securities	60,000

Opening Stock	66,000
Furniture and Fixtures	7,200
Debtors	87,000
Goodwill	25,000
Cash in Hand and Bank	30,000
Bills Receivable	10,650
Wages	84,800
Factory Expenses	9,000
General Expenses	7,900
Salaries	14,500
Debenture Interest	18,000
Equity Capital	3,60,000
10% Preference Shares	1,00,000
Bills Payable	38,000
Sales	4,18,000
Sales Returns	3,000
Interest Received	3,500
Advertising	5,000

Other Information:

(a) Depreciate machinery by 10% and furniture by 5%.
(b) Provide final dividend on equity shares at 5% and dividend on preference shares.
(c) Make provision for Income Tax at ₹25,000.
(d) Closing stock on 31-03-2014 is ₹1,01,000.
(e) General expenses include ₹4,000 as selling expenses.
(f) Write off 50% of preliminary expenses.

Solution: **M/s Tax and Trouble Ltd.**

Income Statement for the year ended 31st March, 2014

No.	Particulars	₹	₹	₹
1	Net Sales		4,18,000	
	Less: Sales Return		3,000	4,15,000
2	Cost of Goods Sold:			
	Opening Stock		66,000	
	Add: Purchases		1,80,00	
	Carriage Inward		13,100	
	Wages		84,800	
	Factory Expenses		9,000	
	Depreciation on Plant and Machinery		36,000	
			3,88,900	
	Less: Closing Stock		1,01,000	2,87,900
3	Gross Profit (1 – 2)			1,27,100
4	Operating Expenses:			
	Office and Administrative Expenses:			
	Director's Fees	5,740		
	General Expenses (7,900 – 4,000)	3,900		
	Salaries	14,500		
	Depreciation on Furniture	360	24,500	
	Selling and Distribution Expenses:			
	Selling Expenses	4,000		
	Bad Debts	2,110		
	Advertising	5,000	11,110	

	Finance Expenses:			
	Debenture Interest		18,000	53,610
5	Operating Profit (3 – 4)			73,490
6	Non-operating Income:			
	Interest Received			3,500
7	Non-operating Expenses:			
	Preliminary Expenses w/off			2,500
8	Net Profit Before Tax (5 + 6 – 7)			74,490
	Less: Tax			25,000
9	Net Profit after Tax			49,490
	Add: Operating Retained Earnings b/d			14,500
	Profit Available for Appropriation			63,990
	Less: Interim Dividend Paid		7,500	
	Dividend on Equity Share Capital		18,000	
	Dividend on Preference Share Capital		10,000	35,000
10	Closing Retained Earnings c/d			**28,490**

Financial Position Statement as on 31st March, 2014

No.	Particulars	₹	₹	₹
I.	**Sources of Funds:**			
1	Shareholders' Funds:			
	Equity Share Capital		3,60,000	
	Add: 10% Preference Share Capital		1,00,000	
			4,60,000	
	Add: Reserves and Surplus:			
	Profit and Loss A/c	28,490		
	General Reserve	25,000	53,490	
			5,13,490	
	Less: Fictitious Assets			
	Preliminary Expenses (not w/off)		2,500	5,10,990
2	Long-term Liabilities:			
	6% Debentures			3,00,000
3	Net Fund Employed (1 + 2)			**8,10,990**
II.	**Application of Funds:**			
1	Fixed Assets:			
	Goodwill		25,000	
	Premises		3,07,000	
	Machinery	3,60,000		
	Less: Depreciation	36,000	3,24,000	
	Furniture and Fixtures	7,200		
	Less: Depreciation	360	6,840	6,63,340
2	Investments:			
	4% Government Securities			60,000
3	Working Capital (A – B)			
	(A) Current Assets:			
	Debtors	87,000		
	Cash/Bank	30,000		
	Bills Receivable	10,650		
	Quick Assets:		1,27,650	
	Closing Stock		1,01,000	
	(A)		2,28,650	
	(B) Current Liabilities:			
	Creditors	40,000		

	Outstanding Expenses	10,000		
	Bills Payable	38,000		
	Provision for Tax	25,000		
	Preference Dividend	10,000		
	Equity Dividend (B)	18,000	1,41,000	
	(A – B)			87,650
	Net Asset Owned (1 + 2 + 3)			**8,10,990**

Illustration 12: The following figures are related to the Sohan Ltd. for the year ended 31st December, 2008.

Particulars	₹	Particulars	₹
Sales	24,00,000	Staff Salaries	40,000
Net Block	10,00,000	Advertisement Expenses	60,000
Bills Receivable	4,00,000	Warehouse Rent	30,000
Bills Payable	2,00,000	Depreciation on Plant	50,000
Cash Balance	85,000	Interest on Overdraft	30,000
Bank Overdraft	2,00,000	Share Capital	8,00,000
Purchases	18,00,000	Reserves (01-01-08)	3,65,000
Other Administrative Expenses	40,000	Stock (01-01-08)	3,60,000
Legal Charges (Paid)	30,000	Laptop Repairs	25,000
		Direct Expenses	15,000

Other Information:

(a) Make a provision for Income Tax of ₹ 2,40,000.

(b) Provide final dividend ₹ 80,000.

(c) Closing stock on 31-12-08 is ₹ 4,00,000

You are required to prepare Balance Sheet and Income Statement in vertical form Suitable for are balance Sheet and Income Statement in vertical form suitable for the year ended 31st December, 2008

Solution: **Income Statement for the year ended 31st December, 2008**

Particulars	₹	₹
Sales		24,00,000
Less: Cost of Goods Sold		
Opening Stock		
Add: Purchases	3,60,000	
	18,00,000	
Less: Closing Stock	21,60,000	
	4,00,000	
Direct Expenses	17,60,000	
	15,000	
Gross Profit		17,75,000
Less: Administrative Expenses		6,25,000
Legal Charges	40,000	
Staff Salaries	30,000	
Staff Salaries	40,000	
Laptop Repairs	25,000	
Advertising	60,000	
Warehouse Rent	30,000	
Depreciating of Plant	50,000	2,75,000
Net Profit before Interest		3,50,000
Less: Interest on Overdraft		30,000
Net Profit before Tax		3,20,000
Less: Income Tax		2,40,000
Net Profit after Tax		80,000

Balance Sheet as on 31st December, 2008

SOURCES OF FUND		
Shareholders' Fund		
Share Capital	8,00,000	
Reserves	3,65,000	
		11,65,000
Total		**11,65,000**
APPLICATIONS OF FUND		
Fixed Assets		
Net Block		10,00,000
Current Assets		
Bills Receivable	4,00,000	
Closing Stock	4,00,000	
Cash	85,000	
(a)	8,85,000	
Less: **Current Liabilities**		
Bill Payable	2,00,000	
Bank Overdraft	2,00,000	
Provision for Tax	2,40,000	
Provision for Dividend	80,000	
(b)	7,20,000	
Net Current Assets (a – b)		1,65,000
Total		**11,65,000**

Illustration 13: Maza Ltd. was formed and incorporated on 1st April 2007. You are given the following trial balance as on 31st March 2008 31st March 2009. You are required to prepare vertical statement for the both the years in columnar form.

Particulars	31st March 2008		31st March 2009	
	Dr ₹	Cr ₹	Dr ₹	Cr ₹
Land and Building	25,50,000		25,50,000	
Machinery	5,50,000		8,00,000	
Furniture	2,00,000		3,00,000	
Sundry Debtors	3,00,000		5,00,000	
Cash and Bank Balance	1,00,000		1,00,000	
Sundry Creditors		2,00,000		3,00,000
Outstanding Expenses		20,000		20,000
Sales		20,00,000		30,00,000
Purchases	12,00,000		15,00,000	
Opening Stock	-	-	3,00,000	
Administration Expenses	2,76,000		3,70,000	
P & L Opening Stock	-	-	-	7,44,000
Selling Expenses	80,000		1,10,000	
Share Capital		20,00,000		20,00,000
Unsecured Loan	-	10,36,000	-	4,66,000
	52,56,000	52,56,000	65,30,000	65,30,000

Adjustment:

(a) Closing Stock as on 31st March, 2009 is ₹ 4,00,000.

Solution: **Maza Ltd.**

Income Statement for the year ended 31st March

Particulars	2008 ₹	2009 ₹
Sales	20,00,000	30,00,000
Less: Cost of Sales		
Opening Stock		3,0,000

Add: Purchases		12,00,000	15,00,000
		12,00,000	18,00,000
Less: Closing Stock		3,00,000	4,00,000
		9,00,000	14,00,000
Gross Profit	**(a)**	11,00,000	16,00,000
Less: Operating Expenses:			
Administration Expenses		2,76,000	3,70,000
Selling Expenses		80,000	1,10,000
	(b)	3,56,000	4,80,000
Net Profit	**(a – b)**	7,44,000	11,20,000

Balance Sheet as at 31st March

		2008 ₹	**2009** ₹
SOURCES OF FUND			
Shareholders' Fund			
Share Capital		20,00,000	20,00,000
Profit & Loss A/c Balance		-	7,44,000
Add: Profit		7,44,000	11,20,000
		27,44,000	38,64,000
Loan Fund			
Secured		-	-
Unsecured		10,36,000	4,66,000
	Total	37,80,000	43,30,000
APPLICATIONS OF FUND			
Fixed Assets			
Tangible Assets			
Land and Building		25,50,000	25,50,000
Machinery		5,50,000	8,00,000
Furniture		2,00,000	3,00,000
		33,00,000	36,50,000
WORKING CAPITAL			
Current Assets			
Quick Assets			
Sundry Debtors		3,00,000	5,00,000
Bank		1,00,000	1,00,000
Other Current Assets			
Stock		3,00,000	4,00,000
	(a)	7,00,000	10,00,000
***Less:* Current Liabilities**			
Quick Liabilities			
Sundry Creditors		2,00,000	3,00,000
Outstanding Expenses		20,000	20,000
	(b)	2,20,000	3,20,000
	(a – b)	4,80,000	6,80,000
	Total	37,80,000	43,30,000

Illustration 14: From the following Trial Balance of Jyoti Ltd. as on 31st March, 2009, prepare vertical Revenue Statement for the year ended 31st March, 2009 and vertical Balance Sheet as on that date after making the necessary adjustments:

Particulars	₹	₹
Equity Share Capital		11,00,000
Plant and Machinery	12,00,000	
Sales		37,00,000
Purchases	17,00,000	
Sundry Debtors	9,00,000	
Sundry Creditors		8,50,000
Wages	3,50,000	
Opening Stock	1,20,000	

Salaries	1,80,000	
Advertisement	75,000	
Telephone Charges	35,000	
Furniture	2,00,000	
Investment (Long-term)	5,00,000	
Interest Received		40,000
Loss on Sale of Furniture	20,000	
Commission	60,000	
Profit and Loss A/c		1,20,000
Interim Dividend	–	1,00,000
General Reserve	3,20,000	
Cash at Bank	2,00,000	–
Bill Receivable	59,10,000	59,10,000

Adjustments:

(a) Stock on 31st March 2009 was valued ₹ 3,00,000.

(b) Make provision of ₹ 3,00,000 for Income Tax.

(c) Depreciate Plant and Machinery @ 20% and Furniture @ 10%.

Solution:

Jyoti Limited

Income Statement for the year ended 31st March, 2009

Particulars	**₹**	**₹**	**₹**
Sales			37,00,000
Less: Cost of Good Sold			
Opening Stock		1,20,000	
Purchases		17,00,000	
		18,20,000	
Less: Closing Stock		3,00,000	
		15,20,000	
Wages		3,50,000	
Depreciation on Plant & Machinery		2,40,000	21,10,000
GROSS PROFIT			15,90,000
Less: Operating Expenses			
Office and Administrative:			
Salaries	1,80,000		
Telephone	35,000		
Depreciation on Furniture	20,000	2,35,000	
		–	
Selling and Distribution:			
Advertisement	75,000		
Commission	60,000	1,35,000	3,70,000
OPERATING PROFIT			12,20,000
Add: Non-operating Income (Interest)			40,000
			12,60,000
Less: Non-operating Expenses (Loss on Sale of Furniture)			20,000
Net Profit before Tax			12,40,000
Less: Tax Provision			3,00,000
Net Profit after Tax			9,40,000
Add: Opening Balance of Profit & Loss A/c			1,20,000
			10,60,000
Less: Interim Dividend			50,000
Balance Transferred to Balance Sheet			10,10,000

Illustration 15: Prepare Comparative Balance Sheet as on 31st March, 2014 and comment on it.

Liabilities	2013 (₹)	2014 (₹)	Assets	2013 (₹)	2014 (₹)
Shares Capital	1,40,000	1,60,000	Buildings	1,10,000	1,60,000
Profit and Loss A/c	40,000	40,000	Machinery	86,000	1,00,000
Debentures	40,000	60,000	Stock	50,000	10,000
Other Second Loans	20,000	40,000	Debtors	30,000	20,000
Creditors	20,000	6,000	Cash	4,000	30,000
Bank Overdraft	16,000	8,000			
Outstanding Expenses	4,000	6,000			
	2,80,000	**3,20,000**		**2,80,000**	**3,20,000**

Solution: Comparative Financial Position as on 31st March, 2014

No.	Particulars	2013 (₹)	2014 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
I.	**Sources of Funds:**				
1	Shareholders' Funds:				
	Share Capital	1,40,000	1,60,000	20,000	14.29
	Add: Reserves and Surplus:				
	Profit and Loss A/c	40,000	40,000	–	–
		1,80,000	2,00,000	20,000	11.11
2	Long-term Liabilities:				
	Debentures	40,000	60,000	20,000	50.00
	Other Secured Loans	20,000	40,000	20,000	100.00
		60,000	1,00,000	40,000	66.67
3	Net Fund Employed (1 + 2)	**2,40,000**	**3,00,000**	**60,000**	**25.00**
II.	**Application of Funds:**				
1	Fixed Assets:				
	Buildings	1,10,000	1,60,000	50,000	45.45
	Machinery	86,000	1,00,000	14,000	16.28
		1,96,000	2,60,000	64,000	32.65
2	Working Capital (A – B)				
	(A) Currents Assets: (QA + NQA)				
	Debtors	30,000	20,000	(10,000)	(33.33)
	Cash	4,000	30,000	26,000	650.00
		34,000	50,000	16,000	47.06
	Quick Assets:				
	Stock	50,000	10,000	(40,000)	(80.00)
	(A)	84,000	60,000	(24,000)	(28.57))
	(B) Current Liabilities:				
	Creditors	20,000	6,000	(14,000)	(70.00)
	Outstanding Expenses	4,000	6,000	2,000	50.00
		24,000	12,000	(12,000)	(50.00)
	Quick Liabilities				
	Bank Overdraft	16,000	8,000	(8,000)	(50.00)
	(B)	40,000	20,000	(20,000)	(50.00)
	(A – B)	44,000	40,000	(4,000)	(9.09)
	Net Assets Owned (1 + 2)	**2,40,000**	**3,00,000**	**60,000**	**25.00**

Illustration 16 [Comparative Financial Statement]: From the following financial statement of Vaibhav Ltd., prepare Comparative Financial Statements (in vertical form).

Balance Sheet as on ______________________

Liabilities	31-12-13 ₹	31-12-14 ₹	Assets	31-12-13 ₹	31-12-14 ₹
Equity Share Capital	4,00,000	4,00,000	Land	2,00,000	2,40,000
9% Preference Share Capital	3,00,000	3,00,000	Factory Plant and Building	6,00,000	5,40,000
General Reserves	2,00,000	2,45,000	Stocks	2,00,000	3,00,000
Tax Payable	1,00,000	1,50,000	Debtors	2,00,000	3,00,000
Creditors	2,00,000	2,75,000	Cash	1,00,000	1,40,000
17% Debentures	1,00,000	1,50,000			
	13,00,00	**15,20,000**		**13,00,000**	**15,20,000**

Profit and Loss A/c for the year ended __________________

Particulars	31-12-13 ₹	31-12-14 ₹	Particulars	31-12-13 ₹	31-12-14 ₹
Cost of Goods Sold	6,00,000	7,50,000	Sales	8,00,000	10,00,000
Administrative Expenses	30,000	40,000			
Selling Expenses	20,000	20,000			
Net Profit	1,50,000	1,90,000			
	8,00,000	10,00,000			
	8,00,000	**10,00,000**		**8,00,000**	**10,00,000**

Solution: Comparative Income Statement for the year ended___________________

Particulars	31-12-13 (₹)	31-12-14 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
1. Net Sales	8,00,000	10,00,000	2,00,000	25.00
2. Cost of Goods Sold	6,00,000	7,50,000	1,50,000	25.00
3. Gross Profit (1 – 2)	2,00,000	2,50,000	50,000	25.00
4. Operating Expenses:				
Administrative Expenses	30,000	40,000	10,000	33.33
Selling Expenses	20,000	20,000	–	–
	50,000	60,000	10,000	20.00
5. Net Profit (3 – 4)	**1,50,000**	**1,90,000**	**40,000**	**26.67**

Comparative Financial Position Statement as on_________________

No.	Particulars	31-12-13 (₹)	31-12-14 (₹)	Increase/ Decrease (₹)	Increase/ Decrease (%)
I.	**Sources of Funds:**				
1	Shareholders' Funds:				
	Equity Share Capital	4,00,000	4,00,000	–	–
	Add: 9% Preference Share Capital	3,00,000	3,00,000	–	–
		7,00,000	7,00,000	–	–
	Add: Reserves and Surplus:	2,00,000	2,45,000	45,000	22.50
	General Reserve				
		9,00,000	9,45,000	45,000	5.00
2	Long-term Liabilities:				
	17% Debentures	1,00,000	1,50,000	50,000	50.00
3	Net Fund Employed (1 + 2)	**10,00,000**	**10,95,000**	**95,000**	**9.50**
II.	**Application of Funds:**				
1	Fixed Assets:				
	Land				

	Factory Plant and Machinery	2,00,000	2,40,000	40,000	20.00
		6,00,000	5,40,000	(60,000)	(10.00)
2	Working Capital (A – B)	8,00,000	7,80,000	(20,000)	(2.50)
	(A) Current Assets:				
	Debtors				
	Cash	2,00,000	3,00,000	1,00,000	50.00
	Quick Assets	1,00,000	1,40,000	40,000	40.00
	Stock	3,00,000	4,40,000	1,40,000	46.67
		2,00,000	3,00,000	1,00,000	50.00
	(B) Current Liabilities:	5,00,000	7,40,000	2,40,000	48.00
	Tax Payable				
	Creditors	1,00,000	1,50,000	50,000	50.00
	Quick Liabilities:	2,00,000	2,75,000	75,000	37.50
	(A – B)	3,00,000	4,25,000	1,25,000	41.67
3	Net Assets Owned (1 + 2)	2,00,000	3,15,000	1,15,000	57.50
		10,00,000	**10,95,000**	**95,000**	**9.50**

Comments: The difference in General Reserve is ₹ 45,000 that means out of Net Profit ₹ 1,90,000 and ₹ 45,000 is transferred to General Reserve in 2013. So, the balance P & L A/c = ₹ 1,90,000 – 45,000 = ₹ 1,45,000.

Remaining Balance Sheet Must be Utilised for:

Particulars	₹
Dividend on Preference Shares	27,000
Tax Provision	50,000
Debenture Interest	25,500
Dividend on Equity Share	42,500
	1,45,000
Cash Gross Profit for 2013	2,50,000
Add: Depreciation on Factory Plant and Building	60,000
	3,10,000

Illustration 17: Following are the Balance Sheet of M/s Raj Ltd. as on 31st March, 2010 and 2011.

Balance Sheets as at 31st March

Liabilities	2010 ₹	2011 ₹	Assets	2010 ₹	2011 ₹
Share Capital	9,25,000	9,75,000	Fixed Assets	9,50,000	8,75,000
General Reserve	2,50,000	3,50,000	Investment	2,25,000	3,00,000
Current Liabilities	2,50,000	3,31,000	Current Assets	4,50,000	7,25,000
13% Debentures	2,00,000	2,44,000		–	–
	16,25,000	19,00,000		16,25,000	19,00,000

Prepare a Comparative Balance Sheet from the above in vertical form.

Solution: **Comparative Balance Sheet as on 31st March**

Particulars	2010 ₹	2010 ₹	2011 ₹	2011 ₹	Increase/Decrease ₹		%	
Sources of Fund								
1. Shareholders' Fund								
Share Capital	9,25,000		9,75,000		50,000		5.41	
General Reserve	2,50,000	11,75,000	3,50,000	13,25,000	1,00,000	1,50,000	40.00	12.76
2. Loan Fund								
13% Debentures		2,00,000		2,44,000		44,000		22.00
Total		13,75,000		15,69,000		1,94,000		14.11
Applications of Fund								
3. Fixed Assets		9,50,000		8,75,000		–75,000		–7.89
4. Investments		2,25,000		3,00,000		75,000		33.33

5. Current Assets	4,50,000		7,25,000		2,75,000		61.11	
Less: Current Liabilities	2,50,000	2,00,000	3,31,000	3,94,000	81,000	1,94,000	372.4	97.00
Total		13,75,000		15,69,000		1,94,000		14.11

Illustration 18: Following is the information regarding Chetan Ltd. for the year ended 31st March, 2009 and 31st March, 2010:

Particulars		2009	2010
Sales	₹	4,00,000	5,00,000
Operating Expenses	₹	1,00,000	50,000
Provision for Tax (on PBT)		40%	40%
Gross Profit		50%	40%

From the above information, prepare comparative revenue statement in vertical form suitable for analysis. Do not write comments.

Solution: **Chetan Ltd.**

Comparative Statement in Vertical Form for the year ended 31st March 2010

Particulars	2008-09 ₹	2009-10 ₹	1/(D) ₹	1/(D) %
Sales	4,00,000	5,00,000	1,00,000	25
Less: COGS	2,00,000	3,00,000	1,00,000	50
Gross Profit	2,00,000	2,00,000	0	0
Less: Operating Expenses	1,00,000	50,000	– 50,000	– 50
NPBT	1,00,000	1,50,000	– 50,000	50
Less: Income Tax	40,000	60,000	20,000	50
NPAT	60,000	90,000	30,000	50

Illustration 19: Complete the following Comparative Statement of Sahyadri Products Ltd. by ascertaining the missing figures.

Particulars	Year Ended 31-03-2009 ₹	Year Ended 31-03-2010 ₹	Increase/ (Decrease) ₹	% Increase/ (Decrease)
Operating Net Profit	?	?	1,00,000	100.00
Add: Non-operating Income	?	1,00,000	80,000	400.00
NPBT	1,20,000	?	1,80,000	?
Less: Provision for Tax	36,000	90,000	?	150.00
NPAT	?	?	1,26,000	150.00

Solution: **Comparative Statement of Sahyadri Products Ltd.**

Particulars	As on 31.03.08	As on 31.03.08	Increase/ (Decrease) ₹	% Increase/ (Decrease)
Operating Net Profit	1,00,000	2,00,000	1,00,000	100.00
Add: Non-operating Income	20,000	1,00,000	80,000	400.00
NPBT	1,20,000	3,00,000	1,80,000	150.00
Less: Provision for Tax	36,000	90,000	54,000	150.00
NPBT	84,000	2,10,000	1,26,000	150.00

Illustration 20: Complete the following Comparative Statement of Himalaya Product Ltd. by ascertaining the missing figures.

Particulars	Year ended 31-03-2009 ₹	Year ended 31-03-2010 ₹	Increase/ (Decrease) ₹	% Increase/ (Decrease)
Gross Profit	?	?	?	?
Less: Expenses: Administration	1,00,000	?	20,000	20.00
Selling	50,000	60,000	10,000	?
Financial	?	25,000	5,000	25.00
Operating Net Profit	?	2,00,000	1,00,000	100.00

Solution: **Comparative Statement of Himalaya Products Ltd.**

Particulars	Year ended 31-03-2009 ₹	Year ended 31-03-2010 ₹	Increase/ (Decrease) ₹	% Increase/ (Decrease)
Gross Profit	**2,70,000**	**4,05,000**	**1,35,000**	**50.00**
Less: Expenses: Administration	1,00,000	**1,20,000**	20,000	20.00

Selling	50,000	60,000	10,000	**20.00**
Financial	**20,000**	25,000	5,000	25.00
Operating Net Profit	**1,00,000**	2,00,000	1,00,000	100.00

Illustration 21: Complete the following Comparative Statement of ND Ltd., and offer your comments on working capital.

Particulars	Amount (₹)		Change	
	31.03.2007	31.03.2008	Increase or Decrease (+/–) ₹	Percentage of change (+/–)
SOURCES OF FUND				
Equity Share Capital	?	2,00,000	?	Nil
Preference Share Capital	1,50,000	?	(–) 50,000	?
Reserves and Surplus	?	?	?	?
	5,30,000	?	?	?
Less: Accumulated Losses	?	20,000	?	Nil
Shareholder's Fund	?	?	(–) 1,26,000	?
Loan Fund				
10% Debentures	?	?	?	?
Sources of Funds	7,10,000	?	?	?
APPLICATION OF FUNDS				
Fixed Assets	5,30,000	?	(–) 30,000	?
Investment	?	?	(–) 50,000	?
Working Capital	?	?	(–) 96,000	(–) 120
Application of Funds	?	?	?	?

Solution: Comparative Balance Sheet of ND Ltd. as on 31st March

Particulars	2007	2008	Increase/Decrease (+/–) ₹	% of Change (+/–)
I. Sources of Funds				
1. Shareholder's Fund				
Equity Share Capital	**2,00,000**	2,00,000	0	0
Preference Share Capital	1,50,000	**1,00,000**	– 50,000	– 33.33
	3,50,000	3,00,000	– 50,000	14.29
Reserves & Surplus	**1,80,000**	1,04,000	– 76,000	– 42.22
	5,30,000	**4,04,000**	– 1,26,000	– 23.77
*Less :*Accumulated Losses	20,000	20,000	–	–
	5,10,000	3,84,000	– 1,26,000	– 24.71
2. Loan Fund				
10% Debentures	**2,00,000**	1,50,000	– 50,000	– 25.00
Total	7,10,000	5,34,000	– 1,76,000	– 24.79
II. Applications of Funds				
Fixed Assets	5,30,000	**5,00,000**	– 30,000	– 5.66
Investments	**1,00,000**	50,000	– 50,000	– 50.00
Working Capital	**80,000**	– 16,000	– 96,000	– 120.00
Total	7,10,000	5,34,000	– 1,76,000	– 24.79

1. Reserves & Surplus = 5,30,000 – 3,50,000 = 1,80,000
2. Share Capital & Reserves & Surplus = 5,30,000 – 1,26,000 = 4,04,000
3. 10% Debentures = 7,10,000 – 5,10,000 = 2,00,000
4. Fixed Assets = 5,30,000 – 30,000 = 5,00,000
5. Working Capital $= \frac{96,000}{120} \times 100 = 80,000$

$= 80,000 - 96,000$

$= -16,000$

Illustration 22: Xenophobia Ltd. presents with their summarised profit and loss account with a request to convert the same into a common size statement in vertical form after incorporating the Information given thereunder:

Particulars	₹	Particulars	₹
To Opening Balance b/f	2,00,000	By Sales	20,00,000
To Opening Stock:		By Miscellaneous Receipts	1,20,000
Finished Goods	3,00,000	By Closing Stock:	
Raw Materials	3,00,000	Finished Goods	6,00,000
To Purchases:		Raw Materials	4,00,000
Raw Materials	9,00,000		
Finished Goods	1,00,000		
To Salaries and Wages	2,00,000		
To Office and Administration Expenses	3,92,000		
To Audit Fees	5,000		
	31,20,000		**31,20,000**

Solution: **M/s Xenophobia Ltd.**

Common Size Income Statement for the year ended_______________

No.	Particulars	₹	₹	% Net Sales	
1.	Net Sales		20,00,000		100.00
2.	Cost of Goods Sold:				
	Opening Stock of Raw Materials	3,00,000		15.00	
	Add: Purchases of Raw Materials	9,00,000		45.00	
		12,00,000		60.00	
	Less: Closing Stock of Raw Materials	4,00,000		20.00	
	Raw Materials Consumed	8,00,000		40.00	
	Add: Opening Stock of Finished Goods	3,00,000		15.00	
	Purchase of Finished Goods	1,00,000		5.00	
		12,00,000		60.00	
	Less: Closing Stock of Finished Goods	6,00,000		30.00	
3.	Gross Profit (1 – 2)		6,00,000		30.00
4.	Operating Expenses (A + B + C):		14,00,000		70.00
	Office and Administrative Expenses:				
	Salaries and Wages	2,00,000		10.00	
	Office and Administrative Expenses (3,92,000 – 12,000)	3,80,000		19.00	
	Audit Fees	5,000		0.25	
	Director's Fees	3,000		0.15	
	Depreciation on Furniture	2,000		0.10	
	Depreciation on Motor Car	3,000		0.15	
	Y2K Expenses	10,000		0.50	
	(A)	6,03,000		30.15	
	Selling and Distribution Expenses:				
	Selling and Distribution Expenses	1,50,000		7.50	
	Bad Assets (Realistic)	8,000			
	(B)	1,58,000			
	Financial Expenses:				
	Interest on Unsecured Loans (C)	13,500			
	(A + B + C)		7,74,500		38.73
5.	Operating Profits (3 – 4)		6,25,500		31.28
	Non-operating Income:				
	Miscellaneous Receipts		1,20,000		6.00
	Non-operating Expenses:				
	Preliminary Expenses w/off		10,000		0.50
	Net Profit Before Tax (5 + 6 – 7)		7,35,500		36.78
	Less: Provision for Tax		3,50,000		17.50
	Net Profit after Tax		3,85,500		19.28
	Less: Opening Balance b/d		2,00,000		10.00
	Profit Available for Appropriation		1,85,500		9.275
	Less: Transfer to General Reserve	20,000			

	Interim Dividend	50,000			
	Proposed Dividend	1,10,000			
	Closing Retained Earnings c/d		1,80,000		9.00
			5,500		0.275

Notes:

1. Y2K Expenses are to be considered as administration expenses.
2. Only realistic bad debts are to be accounted.

Illustration 23: Following is the Balance Sheet of Bofors Incorporation Limited as at 31-3-2014.

Liabilities	₹	Assets	₹
Creditors	2,08,000	Cash	10,000
Advance Income	20,000	Inventory	1,70,000
Provision for Depreciation:		Machinery	4,20,000
on Land and Building	60,000	Advances	14,000
on Machinery	70,000	Furniture	2,10,000
on Furniture	80,000	Goodwill	1,54,000
General Reserve	2,46,000	Investments	98,000
10% Debentures	1,54,000	Bank Balance	56,000
12% Preference Shares	1,00,000	Preliminary Expenses	40,000
Public Deposit	1,00,000	Land and Building	5,08,000
Bank Overdraft	1,04,000	Debtors	2,20,000
Equity Capital	5,00,000	Bills Receivable	50,000
Bills Payable	40,000	Patents and Patterns	1,20,000
Profit and Loss A/c	2,60,000	Discounts on Issue of Debentures	22,000
Capital Redemption Reserve	1,00,000		
Total	**20,92,000**	**Total**	**20,92,000**

Information:

(a) General reserve include ₹ 6,000 being Reserve for bad debts.

(b) Marketable investments included in investments is ₹18,000.

You are required to prepare common size balance sheet in vertical form.

Solution: **M/s Bofors Incorporation Ltd.**

Common Size Financial Position Statement as on 31-03-2014

No.	Particulars	₹	₹	% of NFE/NAO %	%
I.	**Source of Funds:**				
1	Shareholders' Funds:				
	Equity Share Capital		5,00,000		35.92
	Add: 12% Preference Share Capital		1,00,000		7.18
			6,00,000		43.10
	Add: Reserves and Surplus:				
	General Reserve	2,46,000		17.67	
	Less: R.D.D.	6,000		0.43	
		2,40,000		17.24	
	Profit and Loss A/c	2,60,000		18.68	
	Capital Redemption Reserve	1,00,000	6,00,000	7.18	43.10
			12,00,000		86.21
	Less: Fictitious Assets:				
	Preliminary Expenses	40,000		2.87	
	Discount on Issue of Debentures	22,000	62,000	1.58	4.45

				11,38,000		81.75
2	Long-term Liabilities:					
	10% Debentures		1,54,000		11.06	
	Public Deposit		1,00,000	2,54,000	7.18	18.25
3	Net Fund Employed (1 + 2)			**13,92,000**		**100.00**
II	**Application of Funds:**					
1	Fixed Assets:					
	Goodwill			1,54,000		11.06
	Patents and Patterns			1,20,000		8.62
	Land and Buildings		5,08,000		36.49	
	Less: Depreciation Provision		60,000	4,32,000	4.31	32.18
	Machinery		4,20,000		30.17	
	Less: Depreciation Provision		70,000	3,50,000	5.03	25.14
	Furniture		2,10,000		15.09	
	Less: Depreciation Provision		80,000	1,30,000	5.75	9.34
				12,02,000		86.35
2	Investments (98,000 – 18,000)			80,000		5.75
3	Working Capital (A – B)					
	Current Assets:					
	Cash		10,000		0.72	
	Marketable Investments		18,000		1.29	
	Bank Balance		56,000		4.02	
	Debtors	2,20,000				
	Less: R.D.D.	6,000	2,14,000		15.37	
	Bills Receivable		50,000		3.59	
	Quick Assets:			3,48,000		25.00
	Inventory		1,70,000		12.21	
	Advances		14,000	1,84,000	1.01	13.22
		(A)		5,32,000		38.22
	Current Liabilities:					
	Creditors		2,08,000		14.94	
	Provision for Taxation		50,000		3.59	
	Bills Payable		40,000		2.87	
	Quick Liabilities:			2,98,000		21.41
	Advance Income		20,000		1.44	
	Bank Overdraft		1,04,000	1,24,000	7.47	8.91
		(A – B)		1,10,000		7.90
4	Net Assets Owned (1 + 2 + 3)			**13,92,000**		**100.00**

Illustration 24: From the following information, prepare the common size revenue statement with amount and per cent for the year ended on 31st March, 2014 in a vertical form suitable for analysis:

Particulars	**% on Net Sales of ₹ 5,00 000**
Opening Stock	2
Closing Stock	3
Purchases	52
Office Expenses	4.75
Other Administrative Expenses	5.75
Distribution Expenses	6

Selling Expenses	4
Interest (Dr.)	1.50
Indirect Wages	1.50
Direct Wages	2

Provision for income tax is to be made @ 25% on net profit before tax.

Solution: **Common Size Revenue Statement for the year ended 31st March, 2014**

No.	Particulars	₹	% of Net Sales
1	Net Sales	5,00,000	100.00
2	*Less:* Cost of Goods Sold:		
	Opening Stock	10,000	2.00
	Add: Purchases	2,60,000	52.00
	Direct Wages	10,000	2.00
	Indirect Wages	7,500	1.50
		2,87,500	57.50
	Less: Closing Stock	15,000	3.00
		2,72,500	54.50
3	Gross Profit (1 – 2)	2,27,500	45.50
4	*Less:* Operating Expenses:		
	Office Expenses	2,37,502	4.75
	Other Administrative Expenses	28,750	5.75
	Distribution Expenses	30,000	6.00
	Selling Expenses	20,000	4.00
	Interest (Finance Expenses)	7,500	1.50
		1,10,000	22.00
5	Net Profit before Tax (3 – 4)	1,17,500	23.50
	Less: Provision for Income Tax (25% on 1,17,500)	29,375	5.875
6	Net Profit after Tax	88,125	17.625

Illustration 25: Complete the following Income Statement of Narayan Ltd. for the year ended 31st March, 2010 and also prepare Common Size Revenue statement.

Particulars	₹
Net Sales	16,00,000
Less: Cost of Goods Sold	?
Gross Profit (25% on Sales)	?
Less: Operating Expenses	?
Operating Net Profit	2,00,000
Add: Non-operating Income	1,00,000
Less: Non-operating Expenses	?
Net Profit before Tax	2,80,000

Solution: **Narayan Ltd.**

Income Statement for the year ended 31.03.2010

Particulars	₹	%
Net Sales	16,00,000	100
Less: Cost of Goods Sold	12,00,000	75
Gross Profit (25% on Sales)	4,00,000	25
Less: Operating Expenses	2,00,000	12.50
Operating Net Profit	2,00,000	12.50
Add: Non-operating Income	1,00,000	6.25
Less: Non-operating Expenses	20,000	1.25
Net Profit before Tax	2,80,000	11.50

Illustration 26: Complete the following common size Income Statement:

Particulars	₹	%
Gross Sales	9,90,000	?
Less: Sales Return	?	10
Net Sales	?	?
Less: Cost of Sales	?	40
Gross Profit	?	?
Less: Operating Expenses		
(a) Administrative Expenses	?	?
(b) Finance Expenses	?	2
(c) Selling and Distribution Expenses	72,000	?
Operating Net Profit	?	?
Add: Non-operating Income	45,000	?
Less: Non-operating Expenses	?	15
Net Profit before Tax	?	30

Solution: **Common Size Income Statement**

Particular	₹	₹
Gross Sales	9,90,000	110
Less: Sales Return	90,000	10
Net Sales	9,00,000	100
Less: Cost of Sales	3,60,000	40
Gross Profit	5,40,000	60
Less: Operating Expenses		
(a) Administrative Expenses	90,000	10
(b) Finance Expenses	18,000	2
(c) Selling and Distribution Expenses	72,000	8
Operating Net Profit	3,60,000	40
Add: Non-operating Income	45,000	5
Less: Non-operating Expenses	1,35,000	15
Net Profit before Tax	2,70,000	30

Illustration 27: Pass and Fail are partners of a firm carrying on business.

(i) Their position are as on 31st December, 2012, 2013 and 2014 are as follows:

Liabilities	31.12.14	31.12.13	31.12.12	Assets	31.12.14	31.12.13	31.12.12
Partner's Capital	4,00,000	3,40,000	3,00,000	Fixed Assets	4,00,000	3,60,000	2,80,000
General Reserve	1,00,000	1,00,000	1,00,000	Current Assets:			
Secured Loans	60,000	60,000	50,000	Stock	1,60,000	1,50,000	1,35,000
Unsecured Loans	1,60,000	1,80,000	1,40,000	Debtors	2,00,000	1,60,000	1,40,000
Sundry Creditors	1,60,000	90,000	45,000	Loan and Advance	1,00,000	80,000	60,000
				Bank Balance	20,000	20,000	20,000
	8,80,000	**7,70,000**	**6,35,000**		**8,80,000**	**7,70,000**	**6,35,000**

(ii) Summarised Income Statement for the year ended:

Particulars	31.12.14	31.12.13	31.12.12
Sales	40,00,000	36,00,000	30,00,000
Less: Cost of Sales	28,00,000	24,00,000	20,00,000
Gross Profit	12,00,000	12,00,000	10,00,000
Less: Expenses	8,00,000	8,00,000	7,00,000
Net Profit	4,00,000	4,00,000	3,00,000

Work out trend percentage and given your interpretation on the same.

Solution:

(i) **M/s PASS and FAIL Firm**

Trend Analysis Financial Position Statement

Particulars	₹			₹ In (2012 as base year)		
	31.12.12	**31.12.13**	**31.12.14**	**31.12.12**	**31.12.13**	**31.12.14**
I. Sources of Funds:						
1. Shareholders' Funds:						
Partners' Capital	3,00,000	3,40,000	4,00,000	100	113.33	133.33
General Reserve	1,00,000	1,00,000	1,00,000	100	100	100
	4,00,000	4,40,000	5,00,000	100	110	125
2. Long-term Liabilities:						
Secured Loans	50,000	60,000	60,000	100	120	120
Unsecured Loans	1,40,000	1,80,000	1,60,000	100	128.57	114.29
	1,90,000	2,40,000	2,20,000	100	126.32	115.79
3. Net Fund Employed (1 + 2)	**5,90,000**	**6,80,000**	**7,20,000**	**100**	**115.25**	**128.03**
II. Application of Funds:						
1. Fixed Assets	2,80,000	3,60,000	4,00,000	100	128.57	142.36
2. Working Capital (A – B)						
(A) Current Assets (1 + 2)						
Debtors	1,40,000	1,60,000	2,00,000	100	114.29	142.86
Loans and Advances	60,000	80,000	1,00,000	100	133.33	166.67
Bank	20,000	20,000	20,000	100	100	100
(i)	2,20,000	2,60,000	3,20,000	100	118.18	145.45
Quick Assets:						
Stock (ii)	1,35,000	1,50,000	1,60,000	100	111.11	118.52
(i + ii)	3,55,000	4,10,000	4,80,000	100	115.49	135.21
(B) Current Liabilities:						
Sundry Creditors	45,000	90,000	1,60,000	100	200	355.56
(A – B)	3,10,000	3,20,000	3,20,000	100	103.23	103.23
3. Net Assets Owned (1 + 2)	5,90,000	6,80,000	7,20,000	100	115.25	128.03

Trend Analysis

Income Statement for the year 31st March............

Particulars	₹			₹ in % (2013 as Base Year)		
	31.3.12	**31.3.13**	**31.3.14**	**31.3.12**	**31.3.13**	**31.3.14**
1. Net Sales	30,00,000	36,00,000	40,00,000	100	120	133.33
2. Cost of Sales	20,00,000	24,00,000	28,00,000	100	120	140
3. Gross Profit (1 – 2)	10,00,000	12,00,000	12,00,000	100	120	120
4. Operating Expenses	7,00,000	8,00,000	8,00,000	100	114.29	114.29
5. Net Profit (3 – 4)	3,00,000	4,00,000	4,00,000	100	13.33	133.33

Comments: From the above Trend analysis, we can see that there is a consistent increment in Owner's Capital Fund and increased to the level of 133.33% during the last three years. Even there is statistical growth in Loan Fund. Secured Loan has increased by 20%. There is enhancement in unsecured loan also by approximately 29%, but again there is declining trend as compared to Base Year, leads to only 22% enhancement in Total Fund Employee.

There is subsequent growth in Fixes Assets during last three years which has increased by 28% to 42% respectively. Even there is slight enhancement in working capital only by 3% during last three years, leads to only 22% enhancement in total application of Fund during last three years.

Conclusion: From the above trend analysis statement and comments, we can conclude that in Sources of Fund, there is appropriate investment by owners during the last three years and repayment of loan which leads to less burden of interest in coming years. But in Application of Funds, there is uneven distribution as compared to Fixed Assets and Working Capital, leads to problems in short-term solvencies.

Trend Analysis of M/S Pass & Fail Firm

Particulars	2012 ₹	2013 ₹	2014 ₹	2012 (%)	2013 (%)	2014 (%)
I. Sources of Fund:						
Owner's Fund						
Partner's Capital	3,00,000	3,40,000	4,00,000	100	113.33	133.33
Add: General Reserve	1,00,000	1,00,000	1,00,000	100	100	100
Loan Fund:						
Secured Loan	50,000	60,000	60,000	100	120	120
Unsecured Loan	1,40,000	1,80,000	1,60,000	100	128.57	114.28
Total Fund Employed	5,90,000	6,80,000	7,20,000	100	115.25	128.03
II. Applications of Fund						
Fixed Assets	2,80,000	3,60,000	4,00,000	100	128.57	142.85
Working Capital:						
Current Assets:						
Quick:						
Debtors	1,40,000	1,60,000	2,00,000	100	114.28	142.85
Bank	20,000	20,000	20,000	100	100	100
Non-quick:						
Stock	1,35,000	1,50,000	1,60,000	100	111.11	118.51
Loans and Advances	60,000	80,000	1,00,000	100	133.33	166.66
	3,55,000	4,10,000	4,80,000	100	115.49	155.21
Less: Current Lability:						
Quick: Creditors	(45,000)	(90,000)	(60,000)	100	200	133.33
Working Capital	3,10,000	3,20,000	3,20,000	100	103.22	103.22
Total Fund Employed	5,90,000	6,80,000	7,20,000	100	115.25	128.03

Illustration 28: Rearrange the Balance Sheet in vertical form and calculated the trend percentage taking 1992 figures as 100 and briefly comment on the same.

Solution: **Balance Sheet as on 31st December ....** **(₹ in lakhs)**

Liabilities	2011	2012	2013	2014	Assets	2011	2012	2013	2014
Share Capital	60	60	80	80	Building	50	60	55	80
Reserve	50	45	20	20	Goodwill	50	45	40	40
Surplus	13	32	31	40	Machinery	20	40	43	50
Debentures	10	20	20	30	Stock	05	15	25	05
Secured Loans	12	08	10	20	Debtors	20	14	15	10
Creditors	06	08	10	03	Cash	05	01	02	15
Bank Overdraft	01	02	08	04	Preliminary Expenses	03	02	01	–
Other Liabilities	01	02	02	03					
	153	**177**	**181**	**200**		**153**	**177**	**181**	**200**

Trend Analysis
Financial Position Statement as on 31st December

Particulars	₹ in lakhs				₹ in lakhs			
	2011	**2012**	**2013**	**2014**	**2011**	**2012**	**2013**	**2014**
I. Sources of Funds:								
1. Shareholders' Fund:								
Share Capital	60	60	80	80	100	100	133.33	133.33
(+) Reserve	50	45	20	20	100	90	40	40
(+) Surplus	13	32	31	40	100	246.15	238.46	307.69
	123	137	131	140	100	111.38	106.50	113.82

Less: Fictitious Assets:								
Preliminary Expenses	03	02	01	-	100	66.67	33.33	-
Debentures	10	20	20	30	100	200	200	300
2. Long-term Liabilities:								
Secured Loans	12	8	10	20	100	8.33	66.67	166.67
	22	28	30	50	100	127.27	136.36	227.27
3. Net Fund Employed (1 + 2)	**142**	**163**	**160**	**190**	**100**	**114.79**	**112.68**	**133.80**
II. Application of Funds:								
1. Fixed Assets:								
Goodwill	50	45	40	40	100	90	80	80
Building	50	60	55	80	100	120	110	160
Machinery	20	40	43	50	100	200	215	250
	120	145	138	170	100	120.33	115	141.67
2. Working Capital (A – B)								
(A) Current Assets								
Debtors	20	14	15	10	100	70	75	50
Cash	05	01	02	15	100	20	40	300
	25	15	17	25	100	60	68	100
Quick Assets:								
Stock	05	15	25	05	100	300	500	100
(A)	30	30	42	30	100	100	140	100
(B) Current Liabilities								
Creditors	06	08	10	03	100	133.33	166.67	50
Other Liabilities	01	02	02	03	100	200	200	300
Quick Liabilities	07	10	12	06	100	142.86	171.43	85.71
Non-quick Liabilities:								
Bank Overdraft	01	02	08	04	100	200	800	400
(B)	08	12	20	10	100	150	250	125
(A – B)	22	18	22	20	100	81.82	100	90.91
3. Net Assets Owned (1 + 2)	**142**	**163**	**160**	**190**	**100**	**114.79**	**112.68**	**133.80**

Exercise

Theory Questions

1. What is fixed assets?
2. What is an intangible assets?
3. What is quick assets?
4. What is a proprietor's fund?
5. What is reserve capital?
6. What is capital reserve ?
7. What is contingent liabilities?
8. What is quick liabilities?
9. What is long-term borrowings?
10. Fictitious Assets
11. Limitations of Financial Statements
12. Non-operating Income and Expenses
13. Cost of Goods Sold

Fill in the Blanks

1. ___________ shows financial position of a firm.
2. Calls-in-advance should be shown in balance sheet on _____________ side.
3. Calls-in-arrears should be ____________ from subscribed capital.
4. Debentures carry fixed rate ____________.
5. Public deposits should be shown under__________.
6. Trade mark in an ______asset.
7. Livestock is ________asset.
8. Capital employed = Net Worth plus _______.
9. GP is Sales – _________.

10. Current Liabilities =__________ – Current Assets.
11. Fixed Assets =_______Assets + Intangible Assets.
12. Capital Employed = Fixed Asset + _______ Capital.
13. Securities Premium forms part of___________.
14. Comparative statement is a part of _____ analysis.
15. Common size statement is a __________ analysis.
16. Common size statement is also called as ___________ % statement.
17. In common size __________, capital employed is considered equal to 100.
18. In trend analysis, earliest year is considered as __________ year.

Ans.: 1. Balance sheet; 2. liability; 3. deducted; 4. interest; 5. unsecured loan; 6. intangible; 7. fixed; 8. loan fund; 9. cost of goods sold; 10. working capital; 11. tangible; 12. working capital; 13. reserves and surplus; 14. horizontal; 15. vertical; 16. 100; 17. balance sheet; 18. base.

State Whether the Following Statements are True or False

1. Management accounting is a recent development.
2. Profit and Loss A/c shows financial position of an organisation.
3. Subscribed capital is the capital subscribed by the investors.
4. Calls-in-arrears is calls-in-advance.
5. Calls-in-advance is shown under current assets.
6. Debentures may be unsecured only.
7. Goodwill should be shown under fictitious assets
8. Patents and copyright are intangible assets.
9. Loose tools should be shown under current assets.
10. Arrears of preference dividend is a contingent liability.
11. Interest on loan is disclosed separately in the income statement.
12. Profit on sale of machinery is an operating income .
13. Operating expenses are incurred to conduct the operations smoothly.
14. Fictitious assets can be converted into cash.
15. Own fund is external fund.
16. All the quick liabilities are current liabilities.
17. Floating assets are current asset.
18. Comparative statement includes comparative income statement and balance sheet.
19. Comparative balance sheet shows comparative financial status.
20. In common size income statement, capital employed is considered equal to 100.
21. Common size statement is a horizontal analysis.
22. Trend analysis show the trend in financial performance of an organisation.
23. Analysis is a must for interpretation.

Ans.: **True:** 1, 3, 8, 9, 10, 11, 13, 16, 17, 18, 19, 22, 23
False: 2, 4, 5, 6, 7, 12, 14, 15, 20, 21

Match the Columns

(A)

Group A	**Group B**
1. Calls in arrears	(a) Discussed under Reserves and Surplus
2. Oversubscription	(b) Share capital + Reserve – Fictitious assets
3. Securities premium	(c) Own fund + Loan fund
4. Proprietors' fund	(d) Intangible fixed assets
5. Capital employed	(e) Fixed assets
6. Preliminary expenses	(f) disclosed on liability side

7.	Goodwill	(g)	Fictitious assets
8.	Railway sidings	(h)	Subscribed capital is more than issued capital
9.	Calls in advance	(i)	Deducted from subscribed capital
10.	Gross Profit	(j)	Trading profit
11.	Operating net profit	(k)	Profit and Loss A/c balance
12.	Retained earnings	(l)	Non-operating
13.	Loss from speculation	(m)	Operating
		(n)	Gross Profit less Operating Expenses

Ans.: 1. (i), 2. (h), 3. (a), 4. (b), 5. (c), 6. (g), 7. (d), 8. (e), 9. (f), 10. (j), 11. (n), 12. (k), 13. (l)

(B)

	Group A		**Group B**
1.	Sources of funds	(a)	Fixed assets + Investments + Net current assets
2.	Uses of funds	(b)	Current assets - Stock
3.	Liquid assets	(c)	Current liabilities – Bank OD
4.	Quick liabilities	(d)	Net worth
5.	Shareholder funds	(e)	Net worth + Loan fund

Ans.: 1. (e), 2. (a), 3. (b), 4. (c), 5. (d)

(C)

	Group A		**Group B**
1.	An assets which has physical existence	(a)	Reserve earmarked
2.	An asset which has no physical existence	(b)	Deferred revenue expenditure
3.	An expenditure which has no future benefits	(c)	Unpaid expenditure
4.	Revenue expenditure pertaining to future	(d)	Not available for divided
5.	Capital reserve	(e)	Prepaid expenses
6.	Revenue expenditure payable	(f)	Fictitious asset
7.	Expenditure which is carried forward	(g)	Intangible assets
8.	Fund	(h)	Tangible assets
		(i)	Capital expenditure

Ans.: 1. (h), 2. (g), 3. (f), 4. (e), 5. (d), 6. (c), 7. (b), 8. (a)

(D)

	Group A		**Group B**
1.	Calls-in-arrears	(a)	Added to share capital
2.	Forfeited shares	(b)	Fixed asset
3.	Capital WIP	(c)	Current asset
4.	LOOSE TOOLS	(D)	Non-operating expenditure
5.	Loss on sale of machinery	(e)	Deducted from share capital
6.	Oil wells and mines	(f)	Wasting assets
7.	Bank overdraft	(g)	Not a quick asset
8.	Stock	(h)	Not a quick liability
		(i)	Secured loan

Ans.: 1. (e), 2. (a), 3. (b), 4. (c), 5. (d), 6. (f), 7. (h), 8. (g)

(E)

	Group A		**Group B**
1.	Vertical analysis	(a)	Comparative statement
2.	Horizontal analysis	(b)	Method of preparation of comparative
3.	Increases/decreases	(c)	Method of preparation of comparative
4.	% increases/decreases	(d)	Basis of common balance sheet
5.	Capital employed = 100	(e)	Common size statement
6.	Sales = 100	(f)	Basis of common size income statement
7.	Trends analysis	(g)	Earlier year as base year
8.	Comparative statement	(h)	Shows comparative performance

Ans.: 1. (e), 2. (a), 3. (b), 4. (c), 5. (d), 6. (f), 7. (g), 8. (h)

(F)

Group A	Group B
1. Land and building	(a) Net worth
2. Equity share capital	(b) Loan fund
3. Debentures	(c) Investments
4. 5% Government securities	(d) Current asset
5. Loose tools	(e) Fixed asset

Ans.: 1. (e), 2. (a), 3. (b), 4. (c), 5. (d)

(G)

Group A	Group B
1. Quick asset	(a) Share capital + Reserves and Surplus
2. Own fund	(b) Fixed asset + Investment = Net current asset
3. Working capital	(c) Current asset – Stock
4. Applications of fund	(d) Current asset – Current liability
5. Trend analysis	(e) Comparative statements
6. Horizontal analysis	(f) Common size statements
7. Vertical analysis	(g) Internal analysis
	(h) Dynamic analysis

Ans.: 1. (c), 2. (a), 3. (d), 4. (b), 5. (h), 6. (e), 7. (f)

Multiple Choice Questions

1. Land and building is a
   (a) fixed tangible movable asset (b) fixed intangible movable asset
   (c) intangible asset (d) fixed tangible asset
2. Capital work-in-progress in disclosed under
   (a) fixed asset (b) current assets
   (c) capital (d) intangible asset
3. Stock is a
   (a) current asset (b) quick asset
   (c) fixed asset (d) fictitious asset
4. Bank overdraft is not a
   (a) quick liability (b) current liability
   (c) urgent liability (d) liability
5. Operating profit is
   (a) gross profit plus income
   (b) gross profit less operating expenses plus operating income
   (c) gross profit less non-operating income
   (d) gross profit plus operating losses
6. Bills payable is a
   (a) quick liability (b) long-term liability
   (c) fixed liability (d) non-current liability
7. Provision for taxation is a charge against
   (a) profit (b) income
   (c) retained earning (d) none of the above
8. Staff salary is an
   (a) operating expenditure (b) operating income
   (c) non-operating expenditure (d) capital expenditure

9. Fixed assets are 5,00,000, current asset are ₹ 3,00,,000 and current liabilities are ₹ 1,00,000. There is no investments. Capital employed will be
   (a) ₹ 8,00,000 (b) ₹ 7,00,000
   (c) ₹ 9,00,000 (d) ₹ 6,00,000
10. Natural resources likes mines and oil wells are
    (a) wasting assets (b) fictitious assets
    (c) current assets (d) intangible asset
11. The expenditure which is carried forward is
    (a) deferred revenue expenditure (b) revenue expenditure
    (c) capital expenditure (d) expired cost
12. Following is not a liquid asset
    (a) debtors (b) bills receivable
    (c) stock (d) cash
13. Advances given are shown in the vertical balance sheet under
    (a) current asset (b) current liabilities
    (c) fixed liabilities (d) fictitious assets
14. Depreciation on machinery is shown under
    (a) office expenses (b) selling expenses
    (c) finance expenses (d) cost of goods sold

Ans.: 1. (d), 2. (a), 3. (a), 4. (a), 5. (b), 6. (a), 7. (b), 8. (a), 9. (b), 10. (a), 11. (a), 12. (c), 13. (a), 14. (d)

PRACTICAL QUESTIONS

1. Prepare Comparative Income Statement from the following data:

M/s K 7 Co.

Particulars	2013 (₹)	2014 (₹)
Net Sales	5,00,000	4,00,000
Cost of Goods Sold	3,50,000	3,25,000
Operating Expenses	75,000	60,000

Also comment on the changes.

2. Prepare Comparative Balance Sheet as on 31st March, 2014 and comment on it.

Liabilities	2013 (₹)	2014 (₹)	Assets	2013 (₹)	2014 (₹)
Share Capital	1,40,000	1,60,000	Buildings	1,10,000	1,60,000
Profit and Loss A/c	40,000	40,000	Machinery	86,000	1,00,000
Debentures	40,000	60,000	Stock	50,000	10,000
Other Secured Loans	20,000	40,000	Debtors	30,000	20,000
Creditors	20,000	6,000	Cash	4,000	30,000
Bank Overdraft	16,000	8,000			
Outstanding Expenses	4,000	6,000			
	2,80,000	**3,20,000**		**2,80,000**	**3,20,000**

3. Comparative Financial Position Statement

Balance Sheet of RT Ltd. as on December, 2013 and 2014

Liabilities	2013 (₹)	2014 (₹)	Assets	2013 (₹)	2014 (₹)
Preference Share Capital	–	40,00,000	Fixed Assets	7,00,000	10,00,000
Equity Share Capital	5,00,000	5,00,000	Investments (at Cost)	1,00,000	1,20,000
Reserves and Surplus	1,35,500	1,71,500	Stock	1,50,000	1,80,000
12% Debentures	2,00,000	–	Debtors	2,36,000	2,44,000
Bank Overdraft	50,000	80,000	Cash	24,000	2,500
Sundry Creditors	1,50,000	1,25,000			
Provision for Taxation	75,000	1,20,000			
Proposed Dividend	1,00,000	1,50,000			
	12,10,000	**15,46,500**		**12,10,000**	**15,46,500**

Prepare a Comparative balance sheet and offer your comments. **(Oct. 1996)**

4. Comparative/Financial Statement

From the following financial statements of Vaibhav Ltd., prepare Comparative Financial Statements (in Vertical Form).

Balance Sheet as on __________

Liabilities	31-12-13 (₹)	31-12-14 (₹)	Assets	31-12-13 (₹)	31-12-14 (₹)
Equity Share Capital	4,00,000	4,00,000	Land	2,00,000	2,40,000
9% Preference Share Capital	3,00,000	3,00,000	Factory Plant and Building	6,00,000	5,40,000
General Reserves	2,00,000	2,45,000	Stocks	2,00,000	3,00,000
Tax Payable	1,00,000	1,50,000	Debtors	2,00,000	3,00,000
Creditors	2,00,000	2,75,000	Cash	1,00,000	1,40,000
17% Debentures	1,00,000	1,50,000			
	13,00,000	**15,20,000**		**13,00,000**	**15,20,000**

Profit & Loss A/c for the year ended __________

Particulars	31-12-13 (₹)	31-12-14 (₹)	Particulars	31-12-13 (₹)	31-12-14 (₹)
Cost of Goods Sold	6,00,000	7,50,000	Sales	8,00,000	10,00,000
Administrative Expenses	30,000	40,000			
Selling Expenses	20,000	20,000			
Net Profit	1,50,000	1,90,000			
	8,00,000	**10,00,000**		**8,00,000**	**10,00,000**

Briefly comment on the difference between the stand net profit of 2013 and the increment in General Reserves on 31-12-13 assuming that no amount is paid towards tax in 2013.

Also ascertain the quantum of cash gross profit of 2013, assuming that no depreciation is provided on Land. **(Oct. 1997)**

5. Comparative Financial Position Statement

From the following data, prepare Comparative Balance Sheets in vertical form at 31-03-2013 and 31-03-2014 of M/s APJ Ltd.

Balance Sheet as at 31st March

Liabilities	2013 (₹)	2014 (₹)	Assets	2013 (₹)	2014 (₹)
Share Capital	70,000	80,000	Building	55,000	80,000
Profit and Loss A/c	20,000	20,000	Machinery	43,000	50,000
Debentures	20,000	30,000	Stock	25,000	5,000
Other Secured Loan	10,000	20,000	Debtors	15,000	10,000
Creditors	10,000	3,000	Cash	2,000	15,000
Bank Overdraft	8,000	4,000			
Outstanding Expenses	2,000	3,000			
	1,40,000	**1,60,000**		**1,40,000**	**1,60,000**

(April 1999)

6. Comparative Financial Statements

Prepare Comparative Income Statement and Comparative Balance Sheet in vertical form and offer your brief comments.

Particulars	31-3-13 (₹)	31-3-14 (₹)	Particulars	31-3-13 (₹)	31-3-14 (₹)
To Opening Stock	44,000	40,000	By Sales	1,19,000	2,00,000
To Purchases	84,000	72,000	By Closing Stock	46,000	44,000
To Wages	40,000	36,000	By Interest Received	20,000	–
To Factory Expenses	32,000	28,000			
To Establishment Expenses	8,000	6,000			
To Management Expenses	2,000	2,000			
To Selling Expenses	6,000	10,000			
To Interest	6,000	8,000			

To Loss on Sale of Assets	2,000	2,000			
To Provision for Taxation	22,000	24,000			
To Net Profit					
transferred to Reserve	10,000	16,000			
	2,56,000	**2,44,000**		**2,56,000**	**2,44,000**

Balance Sheet as at ....

Liabilities	31-3-13 (₹)	31-3-14 (₹)	Assets	31-3-13 (₹)	31-3-14 (₹)
Equity Capital	50,000	70,000	Fixes Assets	70,000	82,000
Preference Capital	20,000	–	Investments	20,000	10,000
Reserves	50,000	68,000	Current Assets		
Secured Loans	22,000	24,000	Excluding Bank Balance	1,00,000	92,000
Unsecured Loans	30,000	–	Bank Balance	10,000	20,000
Creditors	20,000	25,000	Loans and Advance	40,000	30,000
Outstanding Expenses	6,000	5,000	Preliminary Expenses	12,000	10,000
Provision	54,000	50,000			
Unclaimed Dividend	–	2,000			
	2,52,000	**2,44,000**		**2,52,000**	**2,44,000**

(April 2002)

7. Comparative Financial Position Statement

From the following balance sheet as on 31st March, 2013, and 31st March, 2014 of M/s Successful Ltd., prepare Comparative Balance Sheet for analysis purpose in vertical form.

Particulars	31st March, 2013 (₹)	31st March, 2014 (₹)
Assets:		
Cash and Bank Balance	6,00,000	2,00,000
Short-term Investments	2,00,000	9,00,000
Accounts Receivable	13,00,000	10,00,000
Inventories	15,00,000	5,00,000
Prepaid Income Tax	2,50,000	2,00,000
Other Current Assets	3,00,000	2,50,000
	41,50,000	30,50,000
Land and Building	4,00,000	2,50,000
Machinery	6,00,000	5,00,000
Furniture	1,50,000	1,00,000
Leasehold Land	2,50,000	2,50,000
	14,00,000	11,00,000
	55,50,000	**41,50,000**
Liabilities:		
Bills Payable	12,00,000	8,00,000
Account Payable	10,00,000	5,00,000
Accrued Compensation and Employee Benefit	5,00,000	2,00,000
Income Tax Payable	2,00,000	1,00,000
	29,00,000	16,00,000
Equity Capital	20,00,000	20,00,000
Reserve	6,50,000	5,50,000
	26,50,000	25,50,000
	55,50,000	**41,50,000**

(Oct. 2005)

8. Comparative Balance Sheet

Balance Sheet of Star Ltd. for the year ended 31st December, 2013 and 31st December, 2014 are as follows:

Liabilities	31-12-13 (₹)	31-12-14 (₹)	Assets	31-12-13 (₹)	31-12-14 (₹)
Equity Share Capital	8,00,000	8,00,000	Building	6,00,000	5,40,000

10% Preference Share Capital	6,00,000	6,00,000	Land	2,00,000	2,00,000
General Reserves	4,00,000	4,90,000	Plant	6,00,000	5,40,000
15% Debentures	2,00,000	3,00,000	Furniture	2,00,000	2,80,000
Creditors	3,00,000	4,00,000	Stock	4,00,000	6,00,000
Bills Payable	1,00,000	1,50,000	Debtors	4,00,000	6,00,000
Tax Payable	2,00,000	3,00,000	Cash	2,00,000	2,80,000
	26,00,000	**30,40,000**		**26,00,000**	**30,40,000**

Prepare Comparative Balance Sheet in Vertical form and your comments in brief on Fixed Assets. **(April 2008)**

9. Comparative Statement

Prepare Comparative Revenue Statement in Vertical Form from the following details:

Profit and& Loss A/c for the year ended 31st March

Particulars	2013 (₹)	2014 (₹)	Particulars	2013 (₹)	2014 (₹)
To Opening Stock	2,25,000	3,00,000	By Sales	45,00,000	60,00,000
To Purchases	22,50,000	32,10,000	By Closing Stock	3,00,000	3,60,000
To Interest on Debenture	1,50,000	1,50,000	By Dividend	12,000	39,000
To Depreciation:			By Profit on Sale of Machinery	24,000	–
Furniture	15,000	15,000			
Machinery	36,000	30,000			
To Administrative Expenses	2,94,000	4,41,000			
To Selling Expenses	4,56,000	7,53,000			
To Carriage Outward	75,000	3,15,000			
To Loss by Fire	–	15,000			
To Wages	1,95,000	3,00,000			
To Provision for Tax	5,70,000	4,35,000			
	48,36,000	**63,99,000**		**48,36,000**	**63,99,000**

(Oct. 2008)

10. Prepare a comparative revenue statement in vertical form from the following details:

Nilkamal Ltd.

Profit & Loss A/c for the year ended 31st March

Particulars	2008 ₹	2009 ₹	Particulars	2008 ₹	2009 ₹
To Opening Stock	2,25,000	3,00,000	By Sales	45,00,000	60,00,000
To Purchases	22,50,000	32,10,000	By Closing Stock	3,00,000	3,60,000
To Interest on Debentures	1,50,000	1,50,000	By Dividend	12,000	39,000
To Depreciation:			By Profit on Sale of Machinery	24,000	-
Furniture	15,000	15,000			
Machinery	36,000	30,000			
To Administrative Expenses	2,94,000	4,41,000			
To Selling Expenses	4,56,000	7,53,000			
To Carriage Outward	75,000	3,15,000			
To Loss by Fire	-	15,000			
To Wages	1,95,000	3,00,000			
To Provision for Tax	5,70,000	4,43,000			
To Net Profit	5,70,000	4,35,000			
	48,36,000	63,99,000		84,36,000	63,99,000

11. Convert the following financial statements into the common size financial statements:

Profit and Loss A/c for the year ended 2014

Particulars	(₹)	(₹)
Sales		12,00,000
Less: Cost of Sales		
Opening Stock	1,80,000	
Add: Purchases	9,00,000	

	10,80,000	
Less: Closing Stock	2,00,000	8,80,000
Gross Profit		3,20,000
***Less:* Other Operating Expenses:**		
(i) Office and Administrative	1,00,000	
(ii) Selling and Distribution	20,000	
(iii) Finance	20,000	1,40,000
Operating Net Profit		1,80,000
Add: Non-operating Income		5,000
		1,85,000
Less: Non-operating Expenditure		10,000
Net Profit before Tax		1,75,000
Less: Provision for Taxation		75,000
Net Profit after Tax		1,00,000
Less: Dividend		40,000
Balance of Net Profit Transferred		60,000

12. Common Size Financial Statement

Prepare Common Size Financial Statement.

Balance Sheet

Liabilities	Year 1 (₹)	Year 2 (₹)	Assets	Year 1 (₹)	Year 2 (₹)
Creditors	33,800	36,400	Land	49,400	49,400
Loans	54,000	37,000	Building	2,73,000	2,47,000
Share Capital	5,20,000	5,20,000	Machinery	1,58,600	1,45,600
Reserves	1,48,200	1,77,650	Inventory	2,10,600	2,34,000
Proposed Dividend	9,000	7,000	Prepaid Expenses	28,600	26,600
Tax Provisions	59,400	36,450	Cash	18,200	33,800
			Debtors	86,000	78,700
	8,24,400	**8,14,500**		**8,24,400**	**8,14,500**

Dr. Income Statement Cr.

Expenses	Year 1 (₹)	Year 2 (₹)	Income	Year 1 (₹)	Year 2 (₹)
To Cost of Sale	5,46,750	4,91,400	By Gross Sales	9,91,440	8,26,200
To Opening Expenses:			*Less:* Returns	18,900	16,200
Administrative	91,800	81,000	By Net Sales	9,72,540	8,10,000
Sales	1,78,200	1,62,200	By Non-operating Income	10,930	8,100
To Non-operating Expenses	16,320	10,800			
To Tax Provision	59,400	36,450			
To Proposed Dividend	9,000	7,000			
To Retained Earnings	82,000	29,450			
	9,83,470	**8,18,100**		**9,83,470**	**8,18,100**

(Oct. 1995)

13. Common Size Financial Statements

From the following Financial Statements of Moon Ltd. for the year ended 31st December, 1994 and 1995, prepare: (a) Common size Income Statements, (b) Common size Balance Sheets and (c) Comment on the above.

Balance Sheet as at 31st December ______________

Liabilities	2013 (₹)	2014 (₹)	Assets	2013 (₹)	2014 (₹)
Equity Share Capital	4,00,000	4,00,000	Land	1,00,000	1,00,000
9% Preference Share Capital	3,00,000	3,00,000	Building	3,00,000	2,70,000
General Reserves	2,00,000	2,45,000	Plant	3,00,000	2,70,000
17% Debentures	1,00,000	1,50,000	Furniture	1,00,000	1,40,000
Creditors	1,50,000	2,00,000	Stock	2,00,000	3,00,000
Bills Payable	50,000	75,000	Debtors	2,00,000	3,00,000

Tax Payable	1,00,000	1,50,000	Cash	1,00,000	1,40,000
	13,00,000	**15,20,000**		**13,00,000**	**15,20,000**

Profit and Loss Account for the year ended 31st December _____________

Particulars	2013 (₹)	2014 (₹)	Particulars	2013 (₹)	2014 (₹)
To Cost of Goods Sold	6,00,000	7,50,000	By Net Sales	8,00,000	10,00,000
To Operating Expenses:					
Administrative Expenses	30,000	40,000			
Selling Expenses	20,000	20,000			
To Net Profit	1,50,000	1,90,000			
	8,00,000	**10,00,000**		**8,00,000**	**10,00,000**

(April 1996)

14. Common Size Financial Statement

The summarised Balance Sheet of two companies are as follows:

Balance Sheet as at 31st March, 2014

Liabilities	Top Ltd. (₹)	Ten Ltd. (₹)	Assets	Top Ltd. (₹)	Ten Ltd. (₹)
Equity Share Capital	1,20,000	3,50,000	Fixed Assets	2,45,000	4,10,000
10% Preference Share Capital	1,00,000	50,000	Current Assets	2,90,500	3,32,800
Reserves	1,40,000	56,000	Preliminary Expenses	10,000	6,000
15% Debentures	50,000	50,000			
Current Liabilities	1,35,500	2,42,800			
	5,45,500	**7,48,800**		**5,45,500**	**7,48,800**

Revenue Statements for the year 31st March, 2014

Particulars	(₹)	(₹)
Sales	10,00,000	12,00,000
Less: Cost of Sales	6,00,000	8,00,000
	4,00,000	4,00,000
Less: Operating Expenses (including interest)	1,40,000	2,05,000
Less: Non-cash Operating Expenses (Depreciation)	10,000	20,000
	2,50,000	1,75,000
Less: Taxes	1,00,000	70,000
Less: Dividend	70,000	75,000
Retained Earning	**80,000**	**30,000**

Prepare:

(i) Common size Balance Sheet (in Vertical Form)

(ii) Common Size Income Statements (in Vertical Form)

(iii) Comments in brief

(iv) Working Capital fund generated before tax from operations of both the companies. **(April 1998)**

15. Common Size Financial Position Statement

Prepare a common size balance sheet of M/s Ram Ltd. in vertical form the following information and comment on it.

Particulars	(₹)
Land and Building	6,00,000
Plant and Machinery	5,00,000
Equity Capital	5,00,000
Preference Capital	2,00,000
Stock	2,40,000
Debtors	2,00,000
Cash and Bank	55,000
Miscellaneous Current Assets	5,000
Profit & Loss A/c (Cr. Bal.)	2,00,000
General Reserve	1,00,000
Sundry Creditors	80,000

Bills Payable	60,000
Miscellaneous Current Liabilities	60,000
Debentures	4,00,000

(Oct. 1999)

16. Trend Analysis – Income Statement

You are furnished with the following revenue statements for the year ended 31-3-2014.

Liabilities	2011	2012	2013	2014
Sales	50,00,000	60,00,000	72,00,000	86,40,000
Less: Cost of Sales	32,00,000	38,00,000	46,00,000	56,00,000
Margin	18,00,000	22,00,000	26,00,000	30,40,000
Management Expenses	3,00,000	3,50,000	4,00,000	4,50,000
Sales Expenses	5,00,000	6,00,000	7,20,000	8,64,000
Interest on Borrowing	3,00,000	4,00,000	5,00,000	6,00,000
Total Expenses	11,00,000	13,50,000	16,20,000	19,14,000
Net Profit before Depreciation and Taxation	7,00,000	8,50,000	9,80,000	11,26,000
Depreciation	5,00,000	4,50,000	6,00,000	6,50,000
Profit before Taxation	2,00,000	4,00,000	3,80,000	4,76,000
Income Tax	80,000	2,00,000	1,85,000	2,40,000
Profit after Tax	**1,20,000**	**2,00,000**	**1,95,000**	**2,36,000**

(a) You are asked to prepare trend analysis.

(b) Comments on the same **(Oct. 1997)**

17. Trend Analysis – Financial Statement

(a) Calculate Trend Percentage from the following information extracted from the financial statements of different entities. Give your appropriate comments on each statement:

Particulars	2011 (₹)	2012 (₹)	2013 (₹)	2014 (₹)
Assets:				
Fixed Assets	2,11,696	2,08,694	2,04,580	1,84,122
Investments	20,000	15,000	10,000	9,000
Cash in Hand	41,680	30,472	20,346	18,312
Sundry Debtors	1,85,040	1,31,346	85,750	77,175
Stock	1,31,474	1,34,684	1,45,172	1,30,655
Prepaid Expenses	1,690	3,236	2,440	2,196
	5,91,580	**5,23,432**	**4,68,288**	**4,21,460**
Liabilities:				
Sundry Creditors	1,40,712	1,32,684	1,17,410	1,05,669
Liabilities for Expenses	5,640	4,094	2,490	2,240
Share Capital	4,45,228	3,86,654	3,48,388	3,13,551
	5,91,580	**5,23,432**	**4,68,288**	**4,21,460**

(b)

Particulars	2011 (₹)	2012 (₹)	2013 (₹)	2014 (₹)
Sales	9,880	13,640	16,400	18,040
Cost of Sales	8,810	12,490	14,970	16,460
Expenses	50	130	80	100
Interest Expenses	200	370	500	540
Tax	450	190	390	450
Profit	?	?	?	?

18. Trend Analysis – Income Statement

You are furnished with the following revenue statements for the year ended 31st December.

Particulars	2011 (₹)	2012 (₹)	2013 (₹)	2014 (₹)
Sales	50,000	60,000	72,000	86,400
Less: Cost of Sales	32,000	38,000	46,000	56,000
Margin	18,000	22,000	26,000	30,400
Management Expenses	3,000	3,500	4,000	4,500

Sales Expenses	5,000	6,000	7,200	8,640
Interest on Loans	3,000	4,000	5,000	6,000
Total Expenses	11,000	13,500	16,200	19,140
Profit before Depreciation	7,000	8,500	9,800	11,260
Depreciation	5,000	4,500	6,000	6,500
Profit before Tax	2,000	4,000	3,800	4,760
Income Tax	800	2,000	1,850	2,400
Profit after Tax	1,200	2,000	1,950	2,360

You are required to make trend analysis (absolute figures need not be shown) and comment in brief on change in Gross Profit, Net Profit before Tax. **(April 2003)**

19. Trend Analysis – Income Statement

From the following, prepare income statement in vertical form showing trend percentages of M/s Supreme Ltd. and comment on gross profit trend.

Particulars	2011	2012	2013	2014
Sales	4,20,000	5,10,000	5,40,000	6,00,000
Cost of Sales	1,92,500	2,33,750	2,47,500	2,75,000
Administrative Expenses	67,500	67,500	75,000	75,000
Selling and Distribution Expenses	42,000	51,000	54,000	60,000
Finance Expenses	20,000	20,000	20,000	20,000
Income Tax Provision	29,400	41,325	43,050	51,000

(Oct. 2005)

20. Trend Analysis – Financial Position Statement

From the following Balance Sheet, prepare vertical Balance Sheet which is suitable for analysis and calculate Trend percentages taking 2003 as base year.

Balance Sheet as at 31st December

Particulars	2014 (₹)	2013 (₹)	2012 (₹)
Share Capital	50,000	50,000	50,000
Reserve and Surplus	5,000	10,000	10,000
Secured Loan	3,000	5,000	5,000
Unsecured Loan	2,000		6,000
Current Liabilities	5,000	5,000	4,000
	65,000	**70,000**	**75,000**
Fixed Assets (Net)	40,000	45,000	50,000
Investment	5,000	7,500	10,000
Stock	7,000	6,000	5,000
Debtors	10,000	9,000	7,000
Cash	3,000	2,500	3,000
	65,000	**70,000**	**75,000**

(Oct. 2006)

21. Prepare Vertical Balance Sheet:

Particulars	2013 (₹)	2013 (₹)
Net Worth	?	65,000
Long-term Debts	10,000	?
Fixed Assets	40,000	50,000
Net Current Assets	20,000	25,000

(Ans: Net Worth ₹ 50,000; LTL ₹ 10,000)

22. Prepare Vertical Profit and Loss A/c.

Particulars	2013 (₹)	2014 (₹)
Net Sales	50,000	?
Cost of Sales	50% on Sales	60% on Sales
Gross Profit	?	30,000
Other Income	?	20% on Sales
Net Profit	30,000	?

(Ans: 2013 = G.P. ₹ 25,000; Other Income ₹ 5,000
2014 = Net Sales = ₹ 75,000; Other Income ₹ 15,000; N/P ₹ 45,000)

23. From the following data, prepare comparative statement:

Particulars	Year 1	Year 2
Sales	5,00,000	6,00,000
Gross Profit	40%	50%
Operating Expenses	1,00,000	1,50,000
Income Tax Rate	50%	50%

(Ans: N/P Year 1 = ₹ 50,000; Year 2 =₹ 75,000)

24. Prepare Comparative Income Statement:

Particulars	2012	2013
Sales	₹ 4,00,000	₹ 6,00,000
Cost of Sales	60% of Sales	70% of Sales
Indirect Expenses	50% of GP	40% of GP
Income Tax	50% of NP before tax	50% of N/P

Ans:

Particulars	2012	2013
Cost of Sales	2,40,000	4,20,000
Indirect Expenses	80,000	72,000
NP after Tax	40,000	72,000

25. Prepare Common Size Balance Sheet as on 31st March, 2013.

Liabilities	X Ltd.	Y Ltd	Assets	X Ltd.	Y Ltd
Share Capital	18,00,000	24,00,000	Fixed Assets	20,00,000	32,00,000
Reserves and Surplus	8,00,000	7,00,000	Current Assets	10,00,000	4,00,000
Current Liabilities	4,00,000	5,00,000			
	30,00,000	**36,00,000**		**30,00,000**	**36,00,000**

(Ans: Total Fund Employed
X Ltd. = ₹ 26,00,000; Y Ltd. = ₹ 31,00,000)

26. From the following data, prepare Common Size Income Statement:

Particulars	Year 1 (₹)	Year 2 (₹)
Sales	20,00,000	24,00,000
Cost of Goods Sold	15,00,000	18,00,000
Operating Expenses	2,00,000	3,00,000
Interest on Loan	50,000	1,00,000
Income Tax	80,000	1,00,000

(Ans: N/P - Year 1 = ₹ 1,70,000; Year 2 = ₹ 1,00,000)

27. Complete the following trend statement

M/s Tail Ltd.

Profit and Loss Accounts for the year ended 31st March

Particulars	Years				Base Year			
	2014		2013		2012		2011	
	₹ (000)	%	₹ (000)	%	₹ (000)	%	₹ (000)	%
Sales	2,000	100	?	80	?	120	?	?
Cost of Goods Sold	1,500	?	1,280	100	?	110	?	?
Trading Profit	?	?	?	?	?	?	?	?

Non-operating Income	?	50	135	90	?	60	?	?
Non-operating Expenses	16	?	8	?	?	40	10	?
Profit before Interest and Tax (PBIT)	?	?	?	?	?	?	?	?
Interest	60	?	120	600	40	?	?	?
Profit before Tax (PBT)	?	?	?	?	?	?	?	?
Tax at 50% of PBT	?	?	?	?	?	?	?	?
Profit after (PAT)	?	?	?	?	?	?	?	?
Dividend	3	30	?	90	?	?	?	?
Net Earning	?	?	?	?	410	?	?	?

28. Complete the following Trend Statement of M/s Ravi Industries Ltd.

Particulars	2014	2013	2012	2014	2013	2012
Net Sale	600	800	1,000	100	?	?
Cost of Goods Sold	400	?	?	?	125	?
Gross Profit	200	?	?	?	?	200
Operating Expenses	100	?	200	?	120	?
Operating Net Profit	?	180	?	?	?	?
Non-operating Income	40	?	?	?	50	150
Non-operating Expenses	?	?	?	100	100	100
Net Profit before Tax	120	?	?	?	150	200
Income Tax	40	?	?	?	?	?
Net Profit after Tax	80	100	120	?	?	?

29. Calculate Trend Percentage from the following information extracted from Financial Statements of the Excellent Fashions Ltd. after arranging in vertical form. Give your comments. Round off percentage**:**

(₹ in '000)

Particulars	2014 ₹	2013 ₹	2012 ₹	2011 ₹
Profit & Loss Accounts				
Sales	10,000	11,000	12,000	13,000
Cost of Sales	7,500	8,175	8,850	9,525
Expenses	800	935	1,140	1,287
Interest	225	300	375	450
Profit before Tax	?	?	?	1,738
Tax	590	636	654	695
Profit after Tax	885	?	?	?
Balance Sheet				
Fixed Assets	?	?	?	?
Current Assets	15,000	?	17,800	?
Current Liabilities	?	10,900	?	12,800
Net Working Capital	5,000	5,500	5,950	6,450
Net Worth	10,000	10,700	11,100	11,600
Loans (Liabilities)	5,000	6,000	7,000	8,000

30. Complete the following Trend Statement of Yuvraj by filling the blanks and comment in very brief.

	₹ in Lakhs				**Trend in %**			
	2014	**2013**	**2012**	**2011**	**2014**	**2013**	**2012**	**2011**
Sales	10,000	?	12,000	13,000	100	110	?	130
Less: Cost of Sales	?	?	8,850	?	?	109	?	?
Gross Profit	2,500	?	?	3,475	?	?	126	?
Administrative Expenses	?	?	1,140	?	?	117	?	?
Sales Expenses	225	?	?	450	?	133	?	?
Total Operating Expenses	1,025	?	1,515	1,737	?	?	?	?
Net Profit before Tax	?	?	?	1,738	?	108	?	?
Income Tax	?	636	?	?	?	108	?	118
Net Profit after Tax	885	?	981	?	100	?	?	?

31. From the following balances relating to Kankavli Products Ltd., prepare a Common Size Balance Sheet in vertical form.

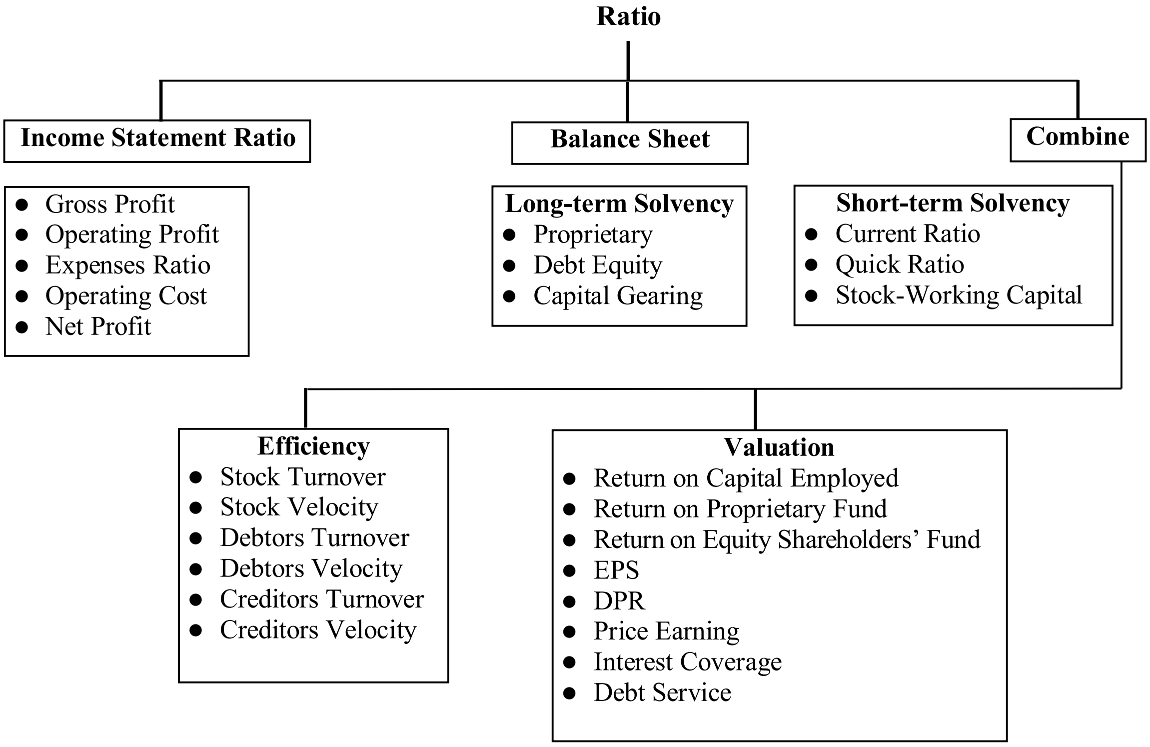
Particulars	₹
Shareholders' Fund	7,15,000
10% Debentures	2,00,000
Current Assets	4,15,000
Current Liabilities	2,00,000
Investments (Long Term)	1,30,000
Fixed Assets	?

Chapter 3

Ratio Analysis

RATIO ANALYSIS

Ratios are well-known and most widely used tools of financial analysis. A ratio gives the mathematical relationship between one variable and another. Though the computation of a ratio involves only a simple arithmetic operation, its interpretation is a difficult exercise. The analysis of a ratio can disclose relationships as well as bases of comparison that reveal conditions and trends that cannot be detected by going through the individual components of the ratio. The usefulness of ratios is ultimately dependent on their intelligent and skillful interpretation.



Absolute numbers tell very little. Assume that two companies A and B operating within the same industry submit the information:

Particulars	Company A	Company B
Net Profit	10,000	1,00,000

One can easily say that Company B makes the most profit. But which company is most profitable? The answer for this will naturally call for further additional information relating to profit such as size of the company, the total sales it generates or to how much capital is invested in it. Hence, an assessment or a judgement is made based on making some sort of comparison. Extending the example:

Particulars	Company A	Company B
Net Profit	10,000	1,00,000
Sales	2,00,000	5,00,000
Net Worth (Capital Reserve)	1,00,000	2,00,000

If net profit is compared with sales, an assessment can be made on which company generates the most net profit per ₹ 1 received from customers.

Return on Capital Employed:

Particulars	Company A	Company B
Net Profit/Sales × 100	5%	20%
Net Profit/Net Worth × 100	10%	25%

Ratio can be expressed in the following three forms:

1. As proportion
2. As percentage
3. As turnover rate

Simple or pure ratio is merely a quotient arrived by simple division of one number by another. When the current assets of a business firm are ₹ 60,000 and current liabilities is ₹ 15,000.

- The ratio is derived by dividing ₹ 60,000 by ₹ 15,000. It will be expressed as 4 : 1.
- Ratios are expressed as percentage relations when the simple or pure ratios are multiplied by 100 (4 × 100 = 400%).
- Ratios are expressed as rates which refer to ratios over a period of time. Example: Stock has turned over 6 times a year.

Ratio Analysis is "separation or breaking up of anything into its elements or component parts". Ratio analysis is, therefore, a technique of analysis and interpreting various ratios for helping in making certain decisions. It involves the methods of calculating and interpreting financial ratios to assess the firm's performance and status. The ratio analysis is one of the most powerful tools of financial analysis. The analysis is not restricted to any one aspect but takes into account all aspects such as earning capacity of the firm, financial obligation, liquidity and solvency aspects, liquidity and profitability concepts.

Ratios are used by different people for various purposes. As ratio analysis mainly helps in valuing the firm in quantitative terms, two groups of people are interested in the valuation of the firm and they are creditors and shareholders. Creditors are again divided into short-term creditors and long-term creditors.

Short-term creditors hold obligations that will soon mature and they are concerned with the firm's ability to pay its bills promptly. In the short run, the amount of liquid assets determines the ability to clear off current liabilities. These persons are interested in liquidity. Long-term creditors hold bonds or mortgages against the firm and are interested in current payments of interest and eventual repayment of principal. The firm must be sufficiently liquid in the short-term and have adequate profits for the long-term. These persons examine liquidity and profitability.

In addition to liquidity and profitability, the owners of the firm (shareholders) are concerned about the policies of the firm that affect the market price of the firm's stock. Without liquidity, the firm cannot pay cash dividends. Without profits, the firm would not be able to declare dividends. With poor policies, the common stock would trade at low prices in the market.

Considering the above category of users financial ratios fall into three groups:

- Liquidity ratios
- Profitability or efficiency ratios

- Ownership ratios
  - — Earnings ratios
  - — Dividend ratios
  - — Leverage ratios
  - — Capital structure ratios
  - — Coverage ratios

Steps in Ratio Analysis

Ratio analysis can provide you with this information in three steps:

1. Calculate the firm's ratios for the current or recent period. Ratios are calculated from the firm's income statement or balance sheet. It is helpful and sometimes necessary to have the financial statement independently audited.
2. Compare these ratios to those calculated in past records. The purpose of this comparison is to identify tendencies in the firm's ratios. This is known as trend analysis.
3. Compare the ratios to industry averages to show how the company compares to firms of the same size in its industry. This process is known as cross-sectional analysis.

Illustration 1: The following financial statements of KR Ltd. will be used for computing the different ratios:

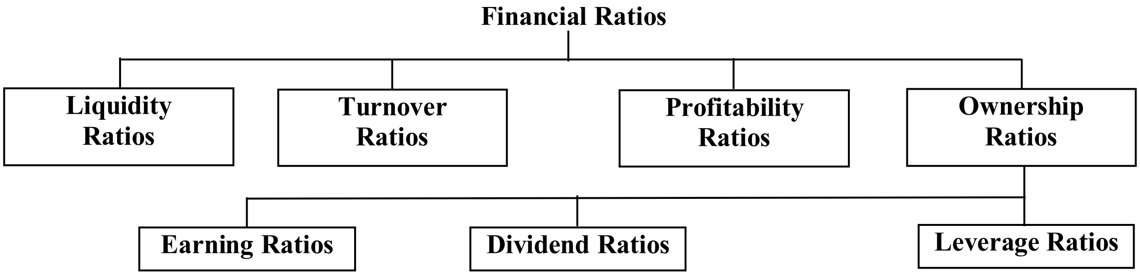
Income Statement for the year ending 31-03-2011

Particulars	₹	₹
Net Sales		
Credit:	7,20,000	
Cash:	4,80,000	12,00,000
Less: Cost of Goods Sold		
Opening Stock	2,00,000	
Add: Purchases	6,00,000	
Less: Closing Stock	2,40,000	
Wages	1,60,000	7,20,000
Gross Profit		4,80,000
Operating Expenses		
Office and Administration Expenses	1,72,000	
Selling and Distribution Expenses	1,50,000	3,12,000
Operating Profit		1,68,000
Interest		8,000
Profit before Tax		1,60,000
Tax		80,000
Profit after Tax		80,000

Balance Sheet of KR Ltd. as on 31-3-2011

Current Liabilities	L/Y	C/Y	Current Assets	L/Y	C/Y
Accounts Payable	1,00,000	1,20,000	Cash	1,20,000	1,60,000
Wages and Taxes Outstanding	60,000	40,000	Accounts receivable	1,20,000	1,20,000
Income Tax Payable	40,000	80,000	Inventories	2,00,000	2,40,000
Long-term Liabilities:			Prepaid Expenses	40,000	40,000
4% Mortgage Debentures	1,60,000	1,60,000	Fixed Assets:		
Share Capital (12,000 shares of ₹ 20 each fully paid)	2,40,000	2,40,000	Land	1,20,000	1,20,000
Retained Earnings	2,40,000	2,80,000	Building and structures	4,80,000	4,80,000
			Less: Accumulated Depreciation on Building and Structures	2,80,000	2,80,000
			Net Buildings and Structures	2,00,000	2,00,000
			Other Assets:		
			Goodwill and Patents	40,000	40,000
Total	**8,40,000**	**8,40,000**	**Total**	**8,40,000**	**8,40,000**

Financial Ratios



Financial ratios can be broadly classified into four categories:

(a) Liquidity ratios
(b) Turnover ratios
(c) Profitability ratios
(d) Ownership ratios.

(a) Liquidity Ratios: It is the ability of a firm to satisfy its short-term obligations as they become due for payment. The liquidity is a prerequisite for the very survival of a firm. It reflects the short-term financial strength or solvency of the firm. The ratios which indicate the liquidity of the firm are:

1. Net Working Capital
2. Current Ratio
3. Acid Test/Quick Ratio
4. Super Quick Ratio
5. Cash Flow from Operations Ratio

1. Net Working Capital: It represents the excess of current assets over current liabilities.

Net Working Capital = Current Assets – Current Liabilities

Although NWC is really not a ratio, it is frequently employed as a measure of a company's liquidity position. The greater is the amount of NWC, the greater is the liquidity of the firm. Inadequate working capital is the first sign of financial problems for a firm.

2. Current Ratio: Current ratio measures the short-term solvency of the firm. It is computed as:

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

$$\text{For KR Ltd., Current Ratio} = \frac{5{,}60{,}000}{2{,}40{,}000} = 2.33$$

Here, current assets include cash and assets like marketable securities, sundry debtors, inventories, etc. that can be converted into cash within one year. Current liabilities include obligations like sundry creditors, bills payable, accrued expenses, short-term bank loan etc., that have to be repaid within a year.

- The current assets of a firm include cash and bank balances, marketable securities, inventory of raw materials, semi-finished and finished goods, debtors, net of provision for bad and doubtful debts, bills receivable and prepaid expenses.
- The current liabilities include trade creditors, bills payable, bank credit, provision for taxation dividends payable and outstanding expenses.
- As a measure of short-term financial liquidity, it indicates the rupees of current assets available for each rupee of current liability payable.
- Higher ratio, i.e., more than 2 : 1 indicates sound solvency position but at the same time it may be indicative of slack management policies and practices as it might signal excessive inventories or poor credit management.
- Lower ratio, i.e., less than 2 : 1 indicates inadequate working capital. In capital rich countries, where long-term funds from capital market are available in abundance firms dependence on

current liabilities may be less. For public utility companies such as BSNL, MTNL, etc., current ratio is usually very low as they required fewer current assets.

3. Quick Ratio: Quick ratio is also known as liquid ratio or acid test ratio. One defect of the current ratio is that it fails to convey any information on the composition of the current assets of the firm. A rupee of cash is considered equivalent to a rupee of inventory or receivable which may not be so. The acid test ratio is a measure of liquidity designed to overcome this defect by measuring those current assets that can be quickly converted into cash to meet the short-term obligations of current liabilities. In a way, it excludes inventory that are not easily and readily converted into cash.

While computing current ratio, inventory is included as a part of current assets. But inventory normally requires some time for being converted into cash, because of which the true picture of liquidity is not given by current ratio. Quick ratio provides a better measure of liquidity unlike current ratio; it does not take inventories into account. It is computed as:

$$\text{Quick Ratio} = \frac{\text{Current Assets} - \text{Invetories}}{\text{Current Liabilities}}$$

$$\text{For KR Ltd., Quick Ratio} = \frac{3{,}20{,}000}{2{,}40{,}000} = 1.33$$

- Acid test ratio of 1 : 1 is considered satisfactory. This ratio is a more rigorous and penetrating test of the liquidity position of a firm.
- Higher ratio, i.e., more than 1 : 1 indicates sound financial position.
- Lower ratio, i.e., less than 1 : 1 indicates financial difficulty.

4. Super Quick/Cash Ratio: This ratio is calculated by dividing the super quick assets by the current liabilities of a firm. The super quick current assets are cash and marketable securities. This ratio is the most rigorous and conservative test of a firm's liquidity position.

Super Quick Ratio = Cash and Marketable Securities/Current Liabilities

5. Cash Flow from Operations Ratio: This ratio measures liquidity of a firm by comparing actual cash flows from operations (in lieu of current and potential cash inflows from current assets) with current liability.

Cash Flow from Operations Ratio = Operations from Cash Flow/Current Liabilities

6. Bank Finance to Working Capital Gap: Working capital gap is the difference between current assets and current liabilities (other than short-term borrowings). The bank finance to working capital gap ratio indicates the extent to which the firm relies on short-term bank finance for financing its working capital. It is computed as:

$$\text{Bank Finance to Working Capital Gap} = \frac{\text{Short - term Bank Finance}}{\text{Working Capital Gap}}$$

(a) Activity Ratios or Efficiency Ratios: They are concerned with measuring the efficiency in asset management. The efficiency with which the assets are used would be reflected in the speed and rapidity with which assets are converted into sales.

(b) Turnover Ratio*:* This ratio examines how quickly inventory is converted into cash. This ratio helps the financial manager to evaluate in inventory policy. The ratio reveals the number of times finished stock is turned over during a given accounting period. The three relevant turnover ratios are: (i) Inventory turnover ratio, (ii) Debtors turnover ratio, and (iii) Creditors turnover ratio.

They are also referred to as activity ratios and they indicate the efficiency of the firm in dealing with the current assets. They indicate the pace at which the assets are turned into sales.

1. Average Receivables (Debtors) Turnover Ratio: Accounts receivables indicate the credit sales of the company. The debtors turnover ratio or the receivables turnover ratio gives the number of times receivables are generated and collected during the year. It is computed as:

$$\text{Average Receivables (Debtors) Turnover Ratio} = \frac{\text{Net Credit Sales}}{\text{Average Accounts Receivables}}$$

$$\text{For KR Ltd., Average Receivables Turnover Ratio} = \frac{7{,}20{,}000}{(2{,}00{,}000 + 2{,}40{,}000)/2} = 10$$

- Net Credit Sales consist of gross credit sales minus returns from customers. It also includes bills receivables.
- A high ratio is indicative of shorter time lag between credit sales and cash collection.
- A low ratio indicates that debts are not being collected rapidly.

Debt collection period is calculated by any of the following ratios:

The speed at which accounts receivables are collected can be computed using the receivables turnover ratio in the following manner:

$$\text{Average Collection Period} = \frac{360}{\text{Average Accounts Receivable}} = \frac{360}{10} = 36 \text{ days}$$

The average collection period helps in measuring the creditworthiness of the debtors as it indicates the time by which the debtors pay back their obligation arising on account of credit sales.

The higher the turnover ratio and the shorter the average collection period, indicates better trade credit management and the better the liquidity of debtors.

2. Inventory Turnover Ratio: It indicates the efficiency of the firm in producing and selling its product. It is computed as:

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

where, the average inventory is arrived at by taking the average of opening and closing inventory balances.

$$\text{For KR Ltd., Inventory Turnover Ratio} = \frac{7{,}20{,}000}{(2{,}00{,}000 + 2{,}40{,}000)/2} = 3.27$$

To judge whether the ratio of a firm is satisfactory or not, it should be compared over a time on the basis of trend analysis.

Inventory Holding Period = 12 months/Inventory Turnover Ratio

For KR Ltd., Inventory Holding Period =12/3.27 = 3.67 times

3. Creditors Turnover Ratio: It is the ratio between net credit purchase and the average amount of creditors outstanding during the year.

Creditors Turnover Ratio = Net Credit Purchase/Average Creditors

For KR Ltd., Creditor Turnover Ratio = 6,00,00/1,10,000 = 5.45 times

Creditors Collection Period = 12 months/Creditors Turnover Ratio

A higher ratio shows that the creditors are not paid in time.

A lower ratio shows that the business is not taking the full advantage of credit period allowed by the creditors.

4. Assets Turnover Ratio: It indicates the efficiency with which firm uses all its assets to generate sales. It is based on the relationship between cost of goods sold and assets of a firm.

This ratio indicates the firm's ability in generating sales from all financial resources committed to total assets. It is computed as:

$$\text{Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Average Assets}}$$

$$\text{For KR Ltd., Asset Turnover Ratio} = \frac{12{,}00{,}000}{(8{,}40{,}000 + 9{,}20{,}000)/2} = 1.36$$

Total Assets Turnover = Cost of goods sold/Average total assets

Fixed Asset Turnover = Cost of goods sold/Average fixed assets

The total assets and fixed assets are net of depreciation and the assets are exclusive of fictitious assets. Higher the ratio, greater is the intensive utilization of fixed assets. Lower ratio means under utilization of total and fixed assets.

5. Capital Turnover Ratio: Cost of goods sold/Average capital employed lower ratio shows lower profit and higher ratio shows higher profit.

Illustration 2: Birla Cements Ltd. provides the following:

Stock: Opening ₹ 75,000; Closing ₹ 1,00,000; Credit Sales ₹ 2,00,000; Cash Sales ₹ 50,000. Gross Profit 25%. Calculate the Inventory Turnover Ratio.

Solution:

Net Sales = Cash Sales + Credit Sales = 2,00,000 + 50,000 = 2,50,000
Gross Profit = 25% of 2,50,000 (Net Sales) = 62,500
COGS = Net Sales – Gross Profit = 2,50,000 – 62,500 = 1,87,500
Average Inventory = (Opening Stock + Closing Stock)/2 = (75,000 + 1,00,000)/2 = 87,500
Inventory Turnover Ratio = COGS/Average Inventory = 1,87,500/87,500 = 2.14 times

Illustration 3: Total sales of a firm ₹ 5,00,000 of which the credit sales are ₹ 3,65,000. Sundry Debtors and Bills receivable are ₹ 50,000 and ₹ 2,000 respectively. Calculate the Debtors Velocity.

Solution:

Debtors Turnover Ratio	=	Net Credit Sales/(Debtors + Bills Receivables)
	=	3,65,000/(50000 + 2000) = 7.02
Debtors Velocity	=	No. of Days in a Year/Debtors Turnover Ratio
Debtors Collection Period	=	365/7.02 = 52 days

Note: No. of days in a year is taken as 365 days.

Illustration 4: Total purchases ₹ 1,00,000. Cash purchases ₹ 20,000. Discount provision on creditors ₹ 1,000. Purchase returns ₹ 2,000. Creditors at close ₹ 30,000. Bills payable at close ₹ 25,000. Calculate Creditors Velocity.

Solution:

Credit Purchases	=	Total Purchase – Cash Purchase – Purchase Return
	=	1,00,000 – 20,000 – 2,000 = ₹ 78,000
Creditors Turnover Ratio	=	Net Credit Purchases/(Creditors + Bills Payable)
	=	78,000/(30,000 + 25,000) = 1.42
Creditors Velocity	=	No. of Days in a Year/Creditors Turnover Ratio
Creditors Collection Period	=	365/1.42 = 257 days

Note: The Reserve for discount on creditors should not be considered for calculating the net credit sales.

Illustration 5: Total sales of a firm ₹ 50,00,000 of which the credit sales are ₹ 36,50,000. Sundry Debtors and Bills receivable are ₹ 5,000 and ₹ 2,000 respectively. Calculate the Debtors Velocity.

Solution:

Debtors Turnover Ratio	=	Net Credit Sales/(Debtors + Bills Receivables)
	=	36,50,000/(5,000 + 2,000) = 70.02
Debtors Velocity	=	No. of days in a year/Debtors turnover ratio (Debtors collection period)
	=	365/70.02 = 5.2 days

Note: No. of days in a year is taken as 365 days.

Illustration 6: Total purchases ₹ 1,00,000. Cash purchases ₹ 20,000. Discount provision on creditors ₹ 1,000. Purchase returns ₹ 2,000. Creditors at close ₹ 25,000. Bills payable at close ₹ 15,000. Calculate Creditors Velocity.

Solution:

Credit Purchases	=	Total Purchase – Cash Purchase – Purchase Return
	=	1,00,000 – 20,000 – 2,000 = ` 78,000
Creditors Turnover Ratio	=	Payable Bills Creditors (Purchases + Bills Payable)
	=	78,000/(25,000 + 15,000) = 1.95
Creditors Velocity	=	Period Collection Creditors (No. of Days in a Year)
Creditors Collection Period	=	365/1.95 = 187 days

Note: The Reserve for discount on creditors should not be considered for calculating the net credit sales

(c) Profitability Ratios: The management of the firm is interested in the financial soundness of a firm. They are designed to provide answers to questions such as: (i) Is the profit earned by the firm adequate? (ii) What rate of return does it represent? (iii) What is the rate of profit for various divisions and segments of the firm? (iv) What was the amount paid in dividends? (v) What was the amount paid in dividends? (vi) What is the rate of return to equity holders?

Profitability ratios help in measuring the operating efficiency of the firm. Besides the management of the company, creditors, owners and shareholders are also interested in the profitability of the firm. There are two categories of profitability ratios: (a) gross profit margin and (b) net profit margin.

1. Profit in Relation to Sales

Gross Profit Margin: It measures the percentage of each sales rupee remaining after the firm has paid for its goods. The gross profit margin or gross margin measures the relationship between profit and sales. There are two types of margins-gross profit margin and net profit margin. It indicates the efficiency with which the firm produces each unit of the product. It is computed as:

$$\text{Gross Profit Margin} = \frac{\text{Sales} - \text{Cost of Goods Sold}}{\text{Net Sales}} = \text{Gross Profit/Net Sales} \times 100$$

where, Net Sales = Sales – Excise Duty

$$\text{For KR Ltd., Gross Profit Margin} = \frac{4{,}80{,}000}{12{,}00{,}000} = 0.40, \text{ i.e., } 40\%$$

A high ratio of gross profit to sales is a sign of good management as it implies that the cost of production is relatively low. A relatively low gross margin is definitely a danger signal, a need for careful and detailed analysis of the factors responsible for it.

Net Profit Margin: It indicates the overall efficiency of the firm in manufacturing, administering and selling the product. It is computed as:

Net Profit Margin = Net Profit/Net Sales × 100

$$\text{For KR Ltd., Net Profit Margin} = \frac{80{,}000}{12{,}00{,}000} = 0.067, \text{ i.e., } 6.7\%$$

This measures the relationship between net profits and sales of a firm. It measures the percentage of each sales rupee remaining after all costs and expenses including interest and taxes have been deducted.

Operating Profit Ratio = EBIT/Net Sales × 100

For KR Ltd., Operating Profit Ratio = 1,68,000/12,00,000 × 100 = 14%

Net Profit Ratio = EAT/Net Sales × 100

The net profit margin is indicative of management's ability to operate the business with sufficient success not only to recover all the cost but also to leave a margin of reasonable compensation to the owners. Higher the ratio of net operating profit to sales better is the operational efficiency of the concern.

Expenses Ratio: These ratios indicate the relationship of various expenses to net sales. It is computed by dividing expenses by sales. Operating expenses include cost of goods sold, administrative expenses, selling, distribution expense and financial expenses but excludes taxes, dividends and extraordinary losses.

Operating Ratio = Cost of Goods Sold + Operating Expenses/Net Sales × 100

Cost of Goods Sold = Opening Stock + Purchase – Closing Stock

Operating Expenses = Administrative Expenses + Financial Expenses + Selling Expenses

The expenses ratio should be compared over a period of time with the industry average. A low ratio is preferable to high one is unfavorable. For manufacturing concern, an operating ratio between 75% and 80% is expected.

Expense Ratio = Administrative Expenses or Selling and Distribution Expenses or Financial Expenses/Net Sales × 100

Earning Power: It is a measure of a firm's operating performance. It is equal to:

$$\text{Earning Power} = \frac{\text{Earnings Before Interest and Taxes}}{\text{Average Total Assets}}$$

$$\text{For KR Ltd., earning power} = \frac{1{,}68{,}000}{(8{,}40{,}000 + 9{,}20{,}000)/2} = 0.19$$

Return on Equity (ROE): ROE indicates how well the firm has used the resources of the owners. It is computed as:

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Average Equity}}$$

A higher return on equity indicates the efficiency of the firm in utilising the shareholder's resources.

$$\text{For KR Ltd., ROE} = \frac{80{,}000}{(4{,}80{,}000 + 5{,}20{,}000)/2} = 0.16.$$

Return on Capital Employed: It refers to long-term funds supplied by the lenders and owners of the firm. The capital employed provides a test of profitability related to the source of long-term funds. A comparison of this ratio with similar firms, with the industry average and over time would provide sufficient insight into how efficiently the long-term funds of owners and lenders are being used.

ROCE = EBIT/Capital employed × 100

The higher the ratio, the more efficient use of the capital employed and better is the financial position.

Return on Shareholders' Equity: It measures the return on the total equity funds of ordinary shareholders. This ratio judges whether the firm has earned a satisfactory return for its equity holders or not.

ROEF = Net Profit after Tax – Preference Dividends/Shareholders' Equity or Net Worth × 100

Illustration 7: Ranjandas Ltd. provides the following information:

Cash Sales ₹ 8,00,000; Credit Sales ₹ 10,00,000; COGS ₹ 15,80,000 and Return Inwards ₹ 20,000. Calculate Gross Profit Ratio and ratio of COGS.

Solution:

Gross Sales = Cash Sales + Credit Sales = 8,00,000 + 10,00,000 = 18,00,000

Net Sales = Gross Sales – Return Inwards = 18,00,000 – 20,000 = 17,80,000

Gross Profit = Net Sales – COGS = 17,80,000 – 15,80,000 = 2,00,000

1. Gross Profit Ratio = (Gross Profit/Net Sales) × 100 = [2,00,000/17,80,000] × 100 = 11.2%
2. Ratio of COGS = 100 – GP Ratio = 100 – 11.2 = 88.8%

(d) Ownership Ratios: Ownership ratios help in analyzing the value of the shareholders' investments in the firm. They help in evaluating the firm's value with respect to different aspects like earnings of the firm, dividends declared, debt employed by the firm, market price of the firm, etc. Ownership ratios can be divided into three different categories:

1. Earnings Ratios
2. Leverage Ratios
3. Dividend Ratios

Earnings Ratios

They reflect the earnings of the firm and its affect on the market price of the stock

- Earnings Per Share: $\frac{\text{Net Income}}{\text{Number of Outstanding Shares}}$
- Price Earnings Ratio: $\frac{\text{Market Price per Share}}{\text{Earinings per Share}}$
- Capitalization Ratio: $\frac{\text{Earinings per Share}}{\text{Market Price per Share}}$

1. Earnings Ratios: These ratios help in indicating the earnings of the firm and its effect on the price of the share.

Earnings per Share (EPS): EPS helps in computing the profitability of shareholder's investments in the firm. It is computed as:

$$\text{Earnings per Share (EPS)} = \frac{\text{Profit after Tax}}{\text{Number of Outstanding Shares}}$$

$$\text{For KR Ltd., EPS} = \frac{80{,}000}{12{,}000} = 6.67$$

Price-earnings Ratio (P/E Ratio): P/E ratio helps in studying the affect of the earnings of the firm on the market price of the share. It is calculated as:

$$\text{Price-earnings Ratio (P/E Ratio)} = \frac{\text{Market Price of the Share}}{\text{Earnings per Share}}$$

Capitalisation Rate: It is the reciprocal of P/E ratio. It indicates the rate of return expected by the investors.

2. Leverage Ratios: Leverage ratios help in analysing the long-term solvency of the firm. They are divided into two categories: Capital structure ratios and Coverage ratios.

Capital Structure Ratios

- Debt – Ratio $= \frac{\text{Debt}}{\text{Equity}}$
- Debt – Assets Ratio $= \frac{\text{Debt}}{\text{Total Assets}}$

Solvency/Capital Structure Ratios: These ratios indicate the proportions of debt and equity in the capital structure of the firm. Debt-equity ratio and Debt-assets ratio fall under this category.

The long-term lenders/creditors would judge the soundness of a firm on the basis of the long-term financial strength measured in terms of its ability to pay the interest regularly as well as repay the installment of the principal on due dates or in one lump sum at the time of maturity. There are two aspects of the long-term solvency of a firm: (i) the ability to repay the principal when due, and (ii) regular payment of the interest. Accordingly, there are two different but mutually dependent and interrelated types of leverage ratios.

Balance Sheet Ratios	Capital Structure Ratios
Debt-equity ratio Debt-asset ratio Equity-asset/Proprietors' fund ratio	Interest coverage ratios Dividend coverage ratios Total fixed charges coverage ratios Cash flow coverage ratios Debt service coverage ratios

Debt-equity Ratio: It describes the lender's contribution in the capital structure in relation to that of the owner. It is computed as:

$$\text{Debt-equity Ratio} = \frac{\text{Debt}}{\text{Equity}}$$

In the above ratio, debt in the numerator includes both long-term as well as current liabilities and the denominator is composed of net worth and preference capital that is not redeemable within one year.

$$\text{For KR Ltd., Debt-equity Ratio} = \frac{4{,}00{,}000}{5{,}20{,}000} = 0.77$$

The D/E ratio is an important tool to appraise the financial structure of a firm. The ratio reflects the relative contribution of creditors and owners of business in its financing. If D/E ratio is 1 : 2 it implies that for every rupee of outside liability (debt) the firm has two rupees of owner's capital or the stake of the creditors is one-half of the owners. Therefore a safety margin of 66.67 per cent is available to the creditors of the firm. A higher debt-equity ratio say 2 : 1 implies low safety margin to the creditors. It would lead to inflexibility in the firm's operation.

Treatment of Preference Share Capital in D/E Ratio: The inclusion or exclusion of preference share capital depends upon the purpose for which the D/E ratio is computed. If the objective is to examine the financial solvency of a firm in terms of its ability to avoid financial risk, preference capital should be clubbed with equity capital. On the other hand, if D/E ratio is calculated to show the effect of the use of fixed-interest/dividend sources of funds on the earnings available to the ordinary shareholders, preference capital should be clubbed with debt.

Trading on Equity: A high debt-equity ratio denotes the use of larger proportion of debt capital in the financial structure of the firm. The debt capital is cheaper to equity capital because interest on debt is a tax deductible expense. The equity shareholders stands to gain for two reasons: (i) Higher returns, (ii) Limited stake would be enable them to retain control. Trading on equity or leverage is the use of borrowed funds in expectation of higher returns to equity shareholders.

Debt Assets Ratio: It helps in finding the extent to which the assets of the firm are funded by borrowed funds. Debt Asset Ratio = Total Debt/Total assets.

$$\text{For KR Ltd., Debt Assets Ratio} = \frac{4{,}00{,}000}{9{,}20{,}000} = 0.43$$

- A low ratio of debt to total assets is desirable from the point of creditors/lenders as there is sufficient margin of safety available to them.
- A high ratio would expose the creditors to high risk. The implications of the ratio of equity capital to total capital are exactly opposite to that of the debt to total assets. A firm should have neither a very high ratio nor a very low ratio.

Proprietary Ratio: This ratio indicates the proportion of total assets financed by the owners.

Proprietary Ratio = Fund's Proprietor/Assets Total

- Higher ratio, say more than 75% shows lesser dependence on external sources.
- Lower ratio, say less than 60% shows more dependence on external sources.

Capital Gearing Ratio: It shows the mix of finance employed in the firm.

Capital Gearing Ratio = Fixed Income bearing Securities/Total Equity

Important Concepts

Equity Capital = Loan Capital = Even Gear
Equity Capital > Loan Capital = Low Gear = Overcapitalisation
Equity Capital $<$ Loan Capital = Higher Gear = Undercapitalisation

Coverage Ratios

Interest Coverage Ratio =
$$\frac{\text{EBIT}}{\text{Interest Expenses}}$$

Fixed Charges Coverage Ratio =
$$\frac{[\text{Earnings before depreciation, interest, lease rentals and taxes}]}{[\text{Debt interest + Lease rentals} + \dfrac{\text{Loan repayment installment}}{(1 - \text{tax rate})} + \dfrac{\text{Pref. Dividend}]}{(1 - \text{tax rate})}}$$

Debt Service Coverage Ratio =
$$\frac{[\text{PAT + Depreciation + Other non-cash charge + Interest on term loan}]}{[\text{Interest on term loan + Repayment of the term loan}]}$$

Coverage Ratios: These ratios help in evaluating the ability of the firm to meet its financial obligations. Interest Coverage Ratio, Fixed Charges Coverage Ratio and Debt Service Coverage Ratio come under this category. These ratios measure the firm's ability to pay certain fixed charges. In the ordinary course of business, the obligations of the creditors are met out of the earnings or operating profits. These claims consist of: (i) interest on loans, (ii) preference dividend, and (iii) amortization of principal or repayment of the installment of loans or redemption of preference capital on maturity. The important coverage ratios are: (i) interest coverage, (ii) dividend coverage, (iii) total coverage, (iv) total cash flow coverage, and (v) debt service coverage ratio.

Interest Coverage Ratio: It indicates the ability of the firm to meet the interest payments associated with debt. It is computed as:

$$\text{Interest Coverage Ratio} = \frac{\text{EBIT}}{\text{Interest Expense}}$$

It can also be computed as:

$$\text{Interest Coverage Ratio} = \frac{\text{Earnings Before Depreciation, Interest and Taxes}}{\text{Interest Expense}}.$$

An interest coverage of five times indicates that a fall in EBIT level to one-fifth of the present level, the operating profits available for servicing the interest on loan would still be equivalent to the claims of the lenders. From the lenders point of view higher the coverage, better is the position of long-term creditors. It also highlights the ability of the firm to raise additional funds in future.

Fixed Charges Coverage Ratio: It is a more comprehensive ratio as it measures the ability of the firm to pay its interest charges as well as principal repayments, lease payments and preference dividends. It is computed as:

Fixed Charges Coverage Ratio =

$$\frac{\text{Earning Before Depreciation, Interest and Taxes}}{\text{Debt Interest} + \text{Lease rentals} + \dfrac{\text{Loan Repayment Installment}}{(1 - \text{tax rate})} + \dfrac{\text{Preference Dividends}}{(1 - \text{tax rate})}}$$

Debt Service Coverage Ratio: It is considered a more comprehensive and apt measure to compute debt service capacity of the firm. It is the ability of a firm to make the contractual payments required on a scheduled basis over the life of the debt. It helps in measuring the ability of the post-tax earnings to meet the total obligations of the firm. It is calculated as:

Debt Service Coverage Ratio =

$$\frac{\text{PAT} + \text{Depreciation} + \text{Other Non - cash Charges} + \text{Interest on Term Loan}}{\text{Interest on Term Loan} + \text{Repayment of the Term Loan}}$$

The higher the ratio, the better it is. A ratio of less than one may be taken as a sign of long-term solvency problem as it indicates that the firm does not generate enough cash internally to service debt. Financial Institutions consider 2 : 1 as satisfactory ratio.

3. Dividend Coverage: It measures the ability of a firm to pay dividend on preference shares which carry a stated rate of return. Higher the coverage better is the position.

Dividend Coverage (Preference) = Net Profit after Tax/Preference Dividend

Dividend Coverage (Equity) = EBIT – Preference Dividend/Equity Dividend

Illustration 8: The Balance Sheet of Dravid Ltd. is as follows:

Assets:	
Fixed Assets	10,00,000
Current Assets	5,00,000
Represented by:	
Liabilities:	
Trade Creditors	1,00,000
Reserves and Surplus	1,00,000
10% Debentures	2,00,000
6% Preference Share Capital	3,00,000
Equity Share Capital	8,00,000

Calculate the Debt Ratio and Debt-equity Ratio.

Solution:

1. Debt Ratio = Total Liabilities to Outsiders/Total Assets
   = (Debentures + Trade Creditors)/(Fixed Assets + Current Assets)
   = (2,00,000 + 1,00,000)/(10,00,000 + 5,00,000)
   = 3,00,000/15,00,000 = 1 : 5
2. Debt-equity Ratio = Outsiders Funds/Equity Shareholders or
   = (Debentures + Trade Creditors)/(Eq. Sh. Capital + Pref. Sh. Cap. + Reserves)
   = 3,00,000/12,00,000 = 1 : 4

Dividend Ratios: The equity holders of a firm are interested in the dividend policy of the firm. The two dividend ratios, i.e., Dividend Payout ratio (D/P ratio) and the Dividend Yield ratio help the shareholders in evaluating the dividend policy of the firm.

Dividend Payout Ratio: It indicates the proportion of total earnings that are declared as dividends to shareholders. It is computed as:

$$\text{Dividend Payout Ratio} = \frac{\text{Dividend per Share}}{\text{Earnings per Share}}$$

Dividend Yield: This ratio helps in analyzing dividends with respect to the market price of the share. It indicates the current return earned by the shareholder on his investment. It is computed as:

$$\text{Dividend Yield} = \frac{\text{Dividend per Share}}{\text{Market Price of the Share}}.$$

Advantages of Ratio Analysis

The various advantages of ratio analysis are as follows:

(a) **Financial Forecasting and Planning:** Ratio analysis helps in the financial forecasting and planning activities. Ratios based on the past sales are useful in planning the financial position. Based on these future trends are set.

(b) **Decision Making:** Ratio analysis throws light on the degree of efficiency. It is also concerned with the management and utilisation of the assets. Thus, it enables for making strategic decisions.

(c) **Comparison:** With the help of ratio analysis, ideal ratios can be composed. These can be used for comparison in respect of the firm's progress and performance, inter-firm comparison with industry average.

(d) **Financial Solvency:** It indicates the trends in the financial solvency of the firm. Long-term solvency refers to the financial liability of a firm. It can also evaluate the short-term liquidity position of the firm.

(e) **Communication:** The financial strength and weaknesses of a firm are communicated in a more easy and understandable manner by the use of ratios. The information contained in the financial statements is conveyed in a meaningful manner. It thus helps in the communication and enhances the value of the financial statements.

(f) **Efficiency Evaluation:** It evaluates the overall efficiency of the business entity. Ratio analysis is an effective instrument which, when properly used, is useful to assess important characteristics of business liquidity, solvency, profitability. A critical study of these aspects may enable conclusions relating to capabilities of business.

(g) **Control:** It helps in making effective control of the business. Actual results can be compared with the established standard and to take corrective action at the right time.

(h) **Other Uses:** Financial ratios are very helpful in the early and proper diagnosis and financial health of the firm.

Limitations of Ratio Analysis

Undoubtedly, ratios are precious tools in the hands of the analyst. But its significance comes from proper use of these ratios. Misuse or mishandling of these ratios and using them without proper context may lead the analyst or management to a wrong direction. The limiting factors are:

1. The user should possess the practical knowledge about the concerns and the industry in general.
2. Ratios are not an end. They are only means to an end.
3. A single ratio in itself is not important. The trend is more significant in the analysis. Comparison of ratios should be made.
4. For comparative purposes, there should be a standard ratio. There are no such standards prescribed for the ratios.
5. The accuracy and correctness of ratios are totally dependent upon the reliability of the data contained in the financial statement on the basis of which ratios are calculated.
6. To use ratios, first of all there should be uniformity in the accounting plan used by both the firms. In addition. There must be consistency in the preparation of financial statement and recording the transactions from year to year within that concern.
7. Ratios become meaningless if detached from the details from which they are derived. The should be used as supplementary and not substitution of the original absolute figures.
8. Time lag in calculation and communicating the same should not be unnecessarily too much.

9. The method of presentation should be precise and without any ambiguity.
10. Price level changes make the ratio analysis meaningless.
11. Inter-firm comparison should never be undertaken in the case of concerns which are not associated or comparable.
12. All techniques concerning the ratio analysis should be taken into account.

Summary Accounting Ratios

Sr.	Ratios	Formula	Expressed as	Suitability	Purpose	Remarks
REVENUE STATEMENT RATIOS						
1	Gross Profit Ratio	$\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$	Percentage	High Ratio	To judge profitability	Operating efficiency of company
2.	Net Profit Ratio (a) Operating Net Profit Ratio	$\frac{\text{Op. Net Profit}}{\text{Net Sales}} \times 100$	Percentage	High Ratio	To judge profitability	
	(b) Net Profit Before Tax Ratio	$\frac{\text{NPBT}}{\text{Net Sales}} \times 100$	Percentage	High Ratio	To judge profitability	
	(c) Net Profit After Tax Ratio	$\frac{\text{NPAT}}{\text{Net Sales}} \times 100$	Percentage	High Ratio	To judge profitability	
3.	Operating Ratio	$\frac{\text{Cos.} + \text{Op. Exp.}}{\text{Net Sales}} \times 100$	Percentage	Low Ratio	To know operating cost and profit	
4.	Expenses Ratio	$\frac{\text{Adm. Exp./S \& D Exp./Fin.Exp./Dep.Exp.}}{\text{Net Sales}} \times 100$	Percentage	Low Ratio	To know operating cost and profit	All operating expenses
		$\frac{\text{Total Op. Exp.}}{\text{Net Sales}} \times 100$	Percentage	Low Ratio	To know operating cost and profit	
5.	Stock T/O Ratio (Stock Velocity Ratio)	$\frac{\text{COS}}{\text{Average RM Stock}}$	Times	High Ratio	To know stock T/O and management	
	(a) Raw Materials T/O Ratio	$\frac{\text{Raw Material Consumed}}{\text{Average RM Stock}}$	Times	High Ratio	To know stock T/O and management	
	(b) Work-in-progress T/O Ratio	$\frac{\text{COP}}{\text{Average WIP Stock}}$	Times	High Ratio	To know stock T/O and management	Cost of production
BALANCE SHEET RATIOS						
6.	Current Ratio	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Pure Ratio (Std 2 : 1)	High Ratio	To know short-term solvency	

7.	Quick Ratio	$\frac{\text{Quick Assets}}{\text{Quick Liabiliies}}$	Pure Ratio (Std 1 : 1)	High Ratio	To know immediate solvency (liquid ratio)	CA – STK – PP EXP – CL – Bank OD – CC
8.	Stock to Working Capital Ratio	$\frac{\text{Closing Stock}}{\text{Working Capital}} \times 100$	Percentage (Std < 100%)	Low Ratio	To know extent of WC invested in stock	WC = CA – CL (net WC)
9.	Proprietary Ratio/Equity Ratio	$\frac{\text{Prop's Funds}}{\text{Total Assets (Excl. Misc.Exp.)}} \times 100$	Percentage (Std > 50%)	High Ratio	To judge long-term solvency and stability of co.	FA + CA + Invt.
10.	Debt-Equity Ratio	$\frac{\text{Debt (Long - term Loans)}}{\text{Equity (Shareholders Funds)}}$	Pure Ratio (Std < 2 : 1)	Low Ratio	To judge long-term solvency and stability of co.	
COMBINED/MISCELLENEOUS RATIOS						
11.	Capital Gearing Ratio	$\frac{\text{Funds with Fix Interest}}{\text{Funds with Fluctuating Interest}}$	Pure Ratio (Std < 1)	Low Ratio	To judge long-term solvency and stability of co.	Fix Int. = Loans + Pref Sh – Non-fix Int = Eq. Sh. – Pref. Sh.
12.	Return on Interest Capital Employed	$\frac{\text{Op Net Profit + Int.}}{\text{Capital Employed (SHF + Long - term Loans)}} \times 100$	Percentage	Low Ratio	To know overall profitability earned compared to T.F.	(Shareholders' Funds + Long-term Loans)
13.	Return on Total Assets/Total Resources	N.P.B.T. + Interest Total Assets (Except Misc. Exp.) (Total Resources)	Percentage	High Ratio	To know overall profitability earned to T.F.	Total Assets = FA + Inv + CA OR SHF + LTR + CL
14.	Return on Prop. Funds	$\frac{\text{NPAT + Interest}}{\text{Shareholders Fund}} \times 100$	Percentage	High Ratio	% of profit earned on prop. funds	
15.	Return on Eq. Shareholders' Fund	$\frac{\text{NPAT – Pref. Dividend}}{\text{Prop. Fund – Pref. Sh. Cap.}} \times 100$	Percentage	High Ratio	% of Profit Earned on Eq. Sh. H. Fund	
16.	Debtors T/O Ratio	$\frac{\text{Net Credit Sales}}{\text{Average Drs. + Bills Rec.}}$	Times	High Ratio	Collection from debtors in year	Op. Drs + CL Drs/2 IF no Op. Drs given, take Cl. Drs
	Avg. Collection Period/Age of Debtors	$\frac{\text{Avg. Drs. \& B.R}}{\text{Net Credit Sales}} \times 365\text{ D}$	D/M	Short Period	Credit Period Allowed to Debtors	Or Divide by 12 M/52 Weeks
17.	Creditors T/O Ratio	$\frac{\text{Net Credit Purchases}}{\text{Average Crs. + Bills Pay}}$	Times	High Ratio	Payments to creditors in year	

	Avg. Payment Period/Age of Creditors	$\frac{\text{Avg. Drs. \& B.R}}{\text{Net Credit Sales}} \times 365\text{ D}$	Times	High Ratio	Credit period allowed by creditors	OR Divide by 12 months/52 weeks
18	Earning Per Share (EPS)	$\frac{\text{NPAT} - \text{Pref. Dividend}}{\text{No of Equity Shares}}$	₹	High Ratio	To know profit and market price of shares	
19	Price Earning Ratio (PE)	$\frac{\text{Market Price of Shares}}{\text{E.P.S}}$	Times	Low Ratio	Provide guidance for investments	
20	Dividend Pay Out Ratio (D/P Ratio)					
	(a)	$\frac{\text{Total Dividend on Eq. \& Pref. Share}}{\text{NPAT}} \times 100$	Percentage	High Ratio	% of NP distributed by way of Dividend High Ratio Liberal Dividend Policy and Low Ratio Conservative Dividend Policy	
	(b)	$\frac{\text{Eq. Dividend per Shares}}{\text{EPS}} \times 100$				
21	Yield Ratio					
	(a) Dividend	$\frac{\text{Eq. Dividend per Shares}}{\text{MKT Price}} \times 100$	Percentage	High Ratio	It gives divided and earning % on the market price of the shares; also represents the real dividend rate/earning rate	
	(b) Earning Yield Ratio	$\frac{\text{EPS}}{\text{Market Price}} \times 100$				
22	Debt Service Coverage Ratio	NPAT + Dep. and Other Non-cash Expenses + Int. Interest + p.a.	> 1 or < 1	High Ratio	To judge the capacity of borrower to pay interest and loan instalment	
23	Interest Coverage Ratio	$\frac{\text{NPBT} + \text{Interest}}{\text{Interest}}$	Times	High Ratio	To judge profit available for paying interest and instalment	NPBT – Tax and Int = NPAT + Tax Int on Loans

24	FA T/O to Ratio	$\frac{\text{Sales / COS}}{\text{Net FA}}$				
25	Capital Turnover Ratio	$\frac{\text{Sales / COS}}{\text{Capital Employed}}$				
26	Working Capital T/O Ratio	$\frac{\text{Sales / COS}}{\text{Working Capital}}$				
27	Assets T/O Ratio	$\frac{\text{Sales Average}}{\text{Assets}}$				
28	Preference Dividend Coverage Ratio	NPAT (before) $\frac{\text{Preference Dividend}}{\text{Equity Dividend}}$				
29	Equity Dividend Coverage Ratio	$\frac{\text{NPAT – Pref. Div.}}{\text{EQ Dividend}}$				
30	Fixed Assets to Shareholders' Fund Ratio	$\frac{\text{Fixed Assets}}{\text{Shareholders Funds}}$				
31	Debt Assets Ratio	Debt Assets				
32	Return on Assets Ratio	Net Profit Average Assets or Sales				

Illustration 9: The following is the Trading and Profit and Loss Account of a Limited Company for the year ended 31st March, 2014.

Profit and Loss Account

Particulars	₹	Particulars	₹
To Stock	76,250	By Sales	5,00,000
To Purchases	3,15,250	By Stock	98,500
To Carriage and Freight	2,000		
To Wages	5,000		
To Gross Profit	2,00,000		
	5,98,500		**5,98,500**

Particulars		₹	particulars	₹	₹
To Administrative Expenses		1,00,000	By Gross Profit		2,00,000
To Finance Expenses:			By Non-operating Income:		
Interest	2,200		Interest on Security	1,500	
Discount	2,400		Dividend on Shares	3,750	
Bad Debts	3,400	8,000	Profit on Sale of Shares	750	6,000
To Selling and Distribution Expenses		12,000			
To Non-operating Expenses					
Loss on Sale of Securities	350				
Provision for Legal Suit	1,650	2,000			
To Net Profit		84,000			
		2,06,000			**2,06,000**

Convert the above Profit and Loss A/c into vertical form and calculate following ratios:

(i) Expenses ratio
(ii) Gross profit ratio
(iii) Net profit ratio
(iv) Operating net profit ratio

(v) Operating ratio
(vi) Stock turnover ratio.

Solution: **In the Books of Ltd. Company**
Vertical Income Statement for the year 31st March, 2014

Particulars	Amount	Amount
Sales		5,00,000
Less: **Cost of Goods Sold**		
Opening Stock	76,250	
(+) Purchases	3,15,250	
(+) Carriage and Freight	2,000	
(+) Wages	5,000	
(–) Closing Stock	98,500	3,00,000
Gross Margin		2,00,000
Less: **Operating Expenses**		
(i) Office Expenses		
Administrative Expenses	1,00,000	
(ii) Selling and Distribution Expenses	12,000	
(iii) Financial Expenses		
Interest	2,200	
Discount	2,400	
Bad Debts	3,400	1,20,000
Operating Profit		80,000
Add: **Non-operating Income**		
Interest on Security	1,500	
Dividend on Shares	3,750	
Profit on Sale of Shares	750	6,000
		86,000
Less: **Non-operating Expenses**		
Loss on Sale of Security	350	
Provision for Legal Suit	1,650	2.000
Net Profit before Tax		84.000

Ratios:

(i) Expenses Ratio: (a) $\frac{\text{Cost of Goods Sold}}{\text{Net Sales}} \times 100 = \frac{3,00,000}{5,00,000} \times 100 = 60\%$

Expense Ratio = $\frac{\text{Expenses}}{\text{Net Sales}} \times 100$

(b) Office Expenses Ratio = $\frac{\text{Office Expenses}}{\text{Net Sales}} \times 100 = \frac{1,00,000}{5,00,000} \times 100 = 20\%$

(c) Selling and Distribution Expenses Ratio = $\frac{\text{Selling \& Distribution}}{\text{Net Sales}} \times 100$

$= \frac{12,000}{5,00,000} \times 100 = 2.4\%$

(d) Financial Expenses Ratio = $\frac{\text{Financial Expenses}}{\text{Net Sales}} \times 100 = \frac{8,000}{5,00,000} \times 100 = 1.6\%$

(ii) Gross Profit Ratio = $\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 = \frac{2,00,000}{5,00,000} \times 100 = 40\%$

(iii) Net Profit Ratio = $\frac{\text{Net Profit Before tax}}{\text{Net Sales}} \times 100 = \frac{84{,}000}{5{,}00{,}000} \times 100 = 16.8\%$

(iv) Operating Profit Ratio = $\frac{\text{Operating Profit}}{\text{Net Sales}} \times 100 = \frac{80{,}000}{5{,}00{,}000} \times 100 = 16\%$

(v) Operating Ratio = $\frac{(\text{Cost of Goods sold} + \text{Operating Expenses})}{\text{Net Sales}} \times 100$

Operating Ratio = 3,00,000 + 1,20,000 = 4,20,000 = $\frac{4{,}20{,}000}{5{,}00{,}000} \times 100 = 84\%$

(vi) Stock Turnover Ratio = $\frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$

Average Stock = $\frac{\text{Opening Stock} + \text{Closing Stock}}{2} = \frac{76{,}250 + 98{,}500}{2} = \frac{1{,}74{,}750}{2} = 87{,}375$

Stock Turnover Ratio = $\frac{3{,}00{,}000}{87{,}375} = 3.43$ times

Illustration 10: From the following Financial Statements of Rimzim Ltd., calculate all the 16 Accounting Ratios and comment on their significance.

Rimzim Ltd.

Manufacturing, Trading and Profit and Loss Account the year ended 31st March, 2014

Particulars	₹	Particulars		₹
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 Administrative expenses	75,000	By Gross Profit b/d		5,00,000
To Selling and Distribution Expenses	50,000	By Dividend on Investments		10,000
To Debenture Interest	20,000	By Profit on Sale of Furniture		20,000
To Depreciation	60,000			
To Loss on Sale of Motor Car	5,000			
To Net Profit c/d	3,20,000			
	5,30,000			**5,30,000**
To Pref. Dividend (Net) (Interim)	15,000	By Balance b/d		2,71,000
To Provision for Taxation	1,76,000	By Net Profit		3,20,000
To Balance c/d	4,00,000			
	5,91,000			**5,91,000**

Balance Sheet as at 31st March, 2014

Liabilities	₹	Assets	₹
Equity Share Capital	10,00,000	Goodwill (at cost)	5,00,000
6% Preference Share Capital	5,00,000	Plant and Machinery	6,00,000
General Reserve	1,00,000	Land and Building	7,00,000
10% Debentures	2,00,000	Furniture and Fixtures	1,00,000
Profit and Loss A/c	4,00,000	Stock in Trade	6,00,000
Provision for Taxation	1,76,000	Bills Receivable	30,000
Bills Payable	1,24,000	Debtors	1,50,000
Bank Overdraft	1,20,000	Bank	2,20,000
Creditors	2,80,000		
	29,00,000		**29,00,000**

Solution:

Profit and Loss Related Ratios

1. Gross Profit Ratio = $\dfrac{\text{Gross Profit}}{\text{Net Sales}} \times 100 = \dfrac{5{,}00{,}000}{20{,}00{,}000} \times 100 = 25\%$

2. Net Profit Ratio

   (a) $\dfrac{\text{Net Profit before Tax}}{\text{Net Sales}} \times 100 = \dfrac{3{,}20{,}000}{20{,}00{,}000} \times 100 = 16\%$

   (b) $\dfrac{\text{Net Profit after Tax}}{\text{Net Sales}} \times 100 = \dfrac{1{,}44{,}000}{20{,}00{,}000} \times 100 = 7.2\%$

3. Operating Profit Ratio = $\dfrac{\text{Operating Profit}}{\text{Net Sales}} \times 100$

   $\therefore$ Operating Profit Ratio = $\dfrac{2{,}95{,}000}{20{,}00{,}000} \times 100 = 14.75$

4. Operating Ratio = $\dfrac{\text{Operating Cost}}{\text{Net Sales}} \times 100$

   Operating Cost = Cost of Goods Sold + Operating Expenses
   = 15,00,000 + 2,05,000 = 17,05,000

   Operating Ratio = $\dfrac{17{,}05{,}000}{20{,}00{,}000} \times 100 = 85.25\%$

5. Expenses Ratio

   (a) $\dfrac{\text{Administrative Expenses}}{\text{Net Sales}} \times 100 = \dfrac{1{,}35{,}000}{20{,}00{,}000} \times = 6.75\%$

   (b) $\dfrac{\text{Selling and Distribution Expenses}}{\text{Net Sales}} \times 100 = \dfrac{50{,}000}{20{,}00{,}000} \times = 2.5\%$

   (c) $\dfrac{\text{Finance Expenses}}{\text{Net Sales}} \times 100 = 1\%$

   (d) $\dfrac{\text{Cost of Goods Sold}}{\text{Net Sales}} \times 100 = \dfrac{15{,}00{,}000}{20{,}00{,}000} \times 100 = 75\%$

6. Stock Turnover Ratio = $\dfrac{\text{Cost of Goods Sold}}{\text{Average Stock}}$

   Average Stock = $\dfrac{\text{Opening Stock} + \text{Closing Stock}}{2} = \dfrac{5{,}00{,}000 + 6{,}00{,}000}{2} = \dfrac{11{,}00{,}000}{2} = 5{,}50{,}000$

   Stock Turnover Ratio = $\dfrac{15{,}00{,}000}{5{,}50{,}000} = 2.73$ times

Balance Sheet Related Ratios

7. Current Ratio = $\dfrac{\text{Current Assets}}{\text{Current Liabilities}} = \dfrac{10{,}00{,}000}{7{,}00{,}000} = 1.43 : 1$

8. Quick Ratio = $\dfrac{\text{Quick Assets}}{\text{Quick Liabilities}}$

   Quick Assets = CA – Stock – Prepaid Expenses = 10,00,000 – 6,00,000 – Nil = 4,00,000
   Quick Liabilities = CL – Bank OD = 7,00,000 – 1,20,000 = 5,80,000

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}} = \frac{4,00,000}{5,80,000} = 0.69 : 1$$

9. $$\text{Proprietory Ratio} = \frac{\text{Owners' Fund}}{\text{Total Assets}} \times 100$$

TA = FA + CA = 19,00,000 + 10,00,000 = 29,00,000

$$\text{Proprietory Ratio } = \frac{20,00,000}{29,00,000} \times 100 = 68.97\%$$

10. $$\text{Stock Working Capital Ratio } = \frac{\text{Closing Stock}}{\text{Working Capital}} \times 100$$

Working Capital = Current Assets – Current Liabilities = 10,00,000 – 7,00,000 = 3,00,000

$$\text{Stock Working Capital Ratio } = \frac{\text{Closing Stock}}{\text{Working Capital}} \times 100 = 200\%$$

11. $$\text{Debt - equity Ratio } = \frac{\text{Debt}}{\text{Equity}} = \frac{\text{Borrowed Funds}}{\text{Own Funds}} = \frac{2,00,000}{20,00,000} = 0.1 : 1$$

12. $$\text{Capital Gearing Ratio } = \frac{\text{Borrowed Funds} + \text{Preference Share Capital}}{\text{Equity Capital} + \text{Reserves}}$$

$$= \frac{2,00,000 + 5,00,000}{15,00,000} = \frac{7,00,000}{15,00,000} = 0.47$$

Combined Ratios

13. Debtors Turnover Ratio

(a) $$\text{No. of Times } = \frac{\text{Credit Sales}}{\text{Average Account Receivable}}$$

$$\text{Average Accounts Receivable } = 1,50,000 + 30,000 = 1,80,000$$

$$\therefore \text{No. of Times } = \frac{17,00,000}{1,80,000} = 9.4 \text{ times}$$

(b) $$\text{Age of Debtors } = \frac{\text{365 Days}}{\text{Debtors Turnover Ratio}} = \frac{365}{9.44} = 39 \text{ days approx.}$$

14. Creditors Turnover Ratio

(a) $$\text{No. of Times } = \frac{\text{Credit Purchases}}{\text{Average Account Payable}}$$

$$\text{Average Accounts Payable } = \text{Creditors} + \text{B/P} = 2,80,000 + 1,24,000 = 4,04,000$$

$$\therefore \text{No. of Times } = \frac{11,00,000}{4,04,000} = 2.72 \text{ times}$$

(b) $$\text{Average Payment Periods } = \frac{\text{365 Days}}{\text{Creditors Turnover Ratio}} = \frac{365}{2.72} = 135 \text{ days approx.}$$

15. $$\text{Return on Total Assets } = \frac{\text{Net Profit Before Interest and Tax}}{\text{Total Assets}} \times 100$$

Total Assets = Fixed Assets + Investment + Current Assets
= 19,00,000 + Nil + 10,00,000 = 29,00,000

Net Profit before Interest and Tax = Net Profit After Tax + Tax + Interest
= 1,44,000 + 1,76,000 + 20,000 = 3,40,000

$$\text{Return on Total Assets} = \frac{3{,}40{,}000}{29{,}00{,}000} \times 100 = 11.72\%$$

16. $$\text{Return on Capital Employed} = \frac{\text{Net Profit Before Interest and Tax}}{\text{Capital Employed}} \times 100$$

Capital Employed = Owners' Fund + Borrowed Fund
= 20,00,000 + 2,00,000 = 22,00,000

$$\text{Return on Capital Employed} = \frac{3{,}40{,}000}{22{,}00{,}000} \times 100 = 15.45\%$$

Illustration 11: The following are abridged accounting reports prepared for P. Ltd.

Revenue Statement for the year ended 30th June, 2014

Particulars		(₹ '000)
Sales (all credit)		300
Less: Cost of Goods Sold		
Opening Inventory	100	
Purchases	205	
	305	
Less: Closing Inventory	80	225
Gross Margin		75
Operating Expenses		57
Net Profit before Taxation		18
Provision for Taxation		8
Net Profit		10

Balance Sheet as on 30th June, 2014 (₹ '000)

Liabilities	₹	₹	Assets		₹	₹
Current Liabilities			Current Assets			
Accounts Payable	87		Cash		30	
Provision for Taxation	8		Accounts Receivable		60	
Accrued Expenses	5	100	Inventory		80	170
Long-term Liabilities		25	Fixed Assets:			
Long on Mortgage		25	Land and Building		65	
Shareholder's Funds			Plant	40		
Paid-up Capital	80		*Less:* Provision for Depreciation	25	15	80
Reserves	30					
Unappropriated Profits	15	125				
		250				250

Name and calculate the ratios which indicate:

1. The rapidity with which accounts receivable are collected.
2. The ability of the company to meet its current obligations.
3. What 'mark-up' has been attained.
4. The efficiency with which funds represented by inventories are being utilised and managed;
5. The ability of the company to meet quickly demands for payment of amounts due.
6. The relative importance of proprietorship and liabilities as sources of funds.

Solution:

1. Debtors Turnover Ratio

(a) $$\text{No. of Times} = \frac{\text{Credit Sales}}{\text{Average Account Receivable}}$$

$$\text{Average Accounts Receivable} = \frac{60{,}000}{\text{Credit Sales}} = 3{,}00{,}000$$

$$\therefore \text{No. of Times } = \frac{3,00,000}{60,000} = 5 \text{ times}$$

(b) $$\text{No. of Days } = \frac{\text{Average Accounts Receivable}}{\text{Credit Sales}} \times 365$$

$$= \frac{60,000}{3,00,000} \times 365 = 73 \text{ days}$$

2. $$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{1,70,000}{1,00,000} = 1.7 : 1$$

3. $$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 = \frac{75,000}{3,00,000} \times 100 = 25\%$$

4. (a) $$\text{Stock Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2} = \frac{1,00,000 + 80,000}{2} = \frac{1,80,000}{2} = 90,000$$

$$\text{Stock Turnover Ratio} = \frac{2,25,000}{90,000} = 2.5 \text{ Times}$$

(b) $$\text{Stock Working Capital Ratio} = \frac{\text{Closing Stock}}{\text{Working Capital}} \times 100$$

Working Capital = C. Assets – Current Liabilities = 1,70,000 – 1,00,00 = 70,000

$$\text{Stock Working Capital Ratio} = \frac{80,000}{70,000} \times 100 = 114.29\%$$

5. $$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}}$$

Quick Assets = CA – Stock – Prepaid Expenses = 1,70,000 – 80,000 – Nil = 90,000
Quick Liabilities = CL – Bank OD = 1,00,000 – Nil = 1,00,000

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}} = \frac{90,000}{1,00,000} = 0.9 : 1$$

6. $$\text{Proprietory Ratio} = \frac{\text{Proprietors' Funds}}{\text{Total Assets}} \times 100$$

Total Assets = Fixed Assets + Current Assets = 80,000 + 1,70,000 = 2,50,000

Illustration 12: The following is the Balance Sheet of Urmila Limited as on 31st March, 2014.

Liabilities	₹	Assets	₹
Share Capital	3,00,000	Goodwill	80,000
Reserves and Surplus	1,50,000	Land and Building	1,50,000
10% Mortgage Debentures	2,15,000	Plant and Machinery	2,00,000
Sundry Creditors	1,30,000	Patent Right	21,500
Bank Overdraft	40,000	Stock-in-trade	1,43,500
Provision for Tax	35,000	Sundry Debtors	2,40,000
		Cash in Hand	5,000
		Cash at Bank	10,000
		Preliminary Expenses	20,000
Total	**8,70,000**	**Total**	**8,70,000**

Additional Information:

1. Stock in Trade as on 1st April, 2013	1,56,500
2. Turnover Sales for the year ended 31st March, 2014	10,95,000
3. Rate of Gross Profit:	33-1/3%
4. Net Profit (before interest and tax)	99,000
5. Net Profit (after interest and tax)	43,000

(a) Present the balance sheet in vertical form.

(b) Calculate the following ratios:

(i) Capital Gearing (ii) Stock Turnover Ratio

(iii) Return on Total Resources (iv) Return on Proprietors' Funds

(v) Return on Ordinary Capital (vi) Turnover of Debtors.

Solution: **Vertical Balance Sheet as on 31st March, 2014**

Particulars		Amount	Amount
Source of Funds			
I. Owners' Fund			
(a) Share Capital		3,00,000	
(b) *Add:* Reserves and Surplus		1,50,000	
(c) *Less:* Miscellaneous Expenses			
Preliminary Expenses		20,000	4,30,000
II. Borrowed Fund			
(a) Secured Loan			
10% Mortgage Debentures			2,15,000
Capital Employed			6,45,000
Application of Funds			
I. Fixed Assets			
(a) Tangible Assets			
Land and Building		1,50,000	
Plant and Machinery		2,00,000	
(b) Intangible Assets			
Goodwill		80,000	
Patent Rights		21,500	4,51,500
II. Working Capital			
(a) Current Assets			
Cash in Hand		5,000	
Cash at Bank		10,000	
Debtors		2,40,000	
Quick Assets		2,55,000	
Stock		1,43,500	
	(a)	3,98,500	
(b) *Less:* Current Liabilities			
Creditor		1,30,000	
Provision for Tax		35,000	
Quick Liabilities			
Bank Overdraft		40,000	1,93,500
Working Capital	**(b)**	2,05,000	
Total Assets	**(a – b)**		6,45,000

1. $$\text{Quick Gearing Ratio} = \frac{\text{Borrowed Funds} + \text{Preference Share Capital}}{\text{Equity Holders' Funds}}$$

$$= \frac{2{,}15{,}000 + \text{Nil}}{4{,}30{,}000 - \text{Nil}} = 0.50:1$$

2. $\text{Stock Turnover Ratio} = \dfrac{\text{Cost of Goods Sold}}{\text{Average Stock}}$

$\text{Average Stock} = \dfrac{\text{Opening Stock} + \text{Closing Stock}}{2}$

$= \dfrac{1{,}56{,}500 + 1{,}43{,}500}{2} = \dfrac{3{,}00{,}000}{2} = 1{,}50{,}000$

Gross Profit is 33-1/3%
If Sales is 100 > 10,95,000
Gross Profit 33-1/3 > ?
Cost of Goods Sold 66-2/3 > ?

$\text{Gross Profit} = \dfrac{33\text{-}1/3 \times 10{,}95{,}000}{100} = \dfrac{100 \times 10{,}95{,}000}{300} = 3{,}65{,}000$

Sales	10,95,500
(–) GP	3,65,000
COGS	7,30,000

$\therefore \text{Stock Turnover Ratio} = \dfrac{\text{Cost of Goods Sold}}{\text{Average Stock}} = \dfrac{7{,}30{,}000}{1{,}50{,}000} = 4.87 \text{ times}$

3. $\text{Return on Total Resources} = \dfrac{\text{Net Profit Before Interest and Tax}}{\text{Total Assets}} \times 100$

Total Assets = Fixed Assets + Current Assets = 4,51,500 = 3,98,500 = 8,50,000

$\text{Return on Total Resource} = \dfrac{99{,}000}{8{,}50{,}000} \times 100 = 11.65\%$

4. Return on Proprietors' Fund

$\text{Return on Propreitors' Fund} = \dfrac{\text{Profit after Tax}}{\text{Proprietors' Funds}} \times 100 = \dfrac{43{,}000}{4{,}30{,}000} \times 100 = 10\%$

5. $\text{Return on Ordinary Capital} = \dfrac{\text{PAT} - \text{Preference Dividend}}{\text{Ordinary Capital}} = \dfrac{43{,}000 - \text{Nil}}{3{,}00{,}000} \times 100 = 14.33\%$

6. Turnover of Debtors
Debtors Turnover Ratio

(a) $\text{No. of Times} = \dfrac{\text{Credit Sales}}{\text{Average Accounts Receivable}} = \dfrac{10{,}95{,}000}{2{,}40{,}000} = 4.56 \text{ times}$

(b) $\text{No. of Days} = \dfrac{\text{Average Accounts Receivable}}{\text{CreditSales}} \times 365$

$= \dfrac{2{,}40{,}000}{10{,}95{,}000} \times 365 = 80.04 = 81 \text{ days approx.}$

Illustration 13: The summarised balance sheet of D Ltd. as on 30th September, 2014 is as follows:

Liabilities	₹	Assets	₹
Equity Share Capital	60,000	Fixed Assets	90,000
Reserves	20,000	Inventory	30,000
6% Debentures	50,000	Marketable Investments	10,000
Current Liabilities	30,000	Debtors	15,000
		Cash and Bank Balances	10,000
		Preliminary Expenses	5,000
	1,60,000		**1,60,000**

The Net Profit before tax for the year was ₹ 7,500.

Prepare a Statement suitable for analysis and indicate the soundness of the financial position of the company by calculating the following ratios together with your comments on the same:

(i) Current Ratio (ii) Liquid Ratio
(iii) Proprietory Ratio (iv) Return on Total Resources
(v) Return on Proprietors' Fund (vi) Return on Equity Share Capital.

Solution:

1. $$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{65,000}{30,000} = 2.17 : 1$$

2. $$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Quick Liabilities}} = \frac{\text{Current Assets} - \text{Stock}}{\text{Current Liabilities} - \text{Bank O/D}} = \frac{35,000}{30,000} = 1.17 : 1$$

3. $$\text{Proprietory Ratio} = \frac{\text{Proprietory Funds}}{\text{TotalAssets}} \times 100 = \frac{75,000}{1,55,000} \times 100 = 48.39\%$$

4. $$\text{Return on Total Assets} = \frac{\text{Net Profit Before Interest Tax}}{\text{Total Assets}} \times 100$$

Net Profit Before Interest Tax = Net Profit Tax + Interest = 7,500 + 3,000 = 10,500

$$\therefore \text{Return on Total Assets} = \frac{10,500}{1,55,000} \times 100 = 6.77\%$$

5. $$\text{Return on Proprietors' Fund} = \frac{\text{PAT}}{\text{Proprietors' Funds}} \times 100$$

Net Profit after Tax = Net Profit before Tax – Tax = 7,500 – 50% = 3,750

$$\therefore \text{Return on Propreitors' Fund} = \frac{3,750}{75,000} \times 100 = 5\%$$

6. $$\text{Return on Equity Share Capital} = \frac{\text{Net Profit after Tax} - \text{Preference Dividend}}{\text{Equity Share Capital}} \times 100$$

$$= \frac{3,750 - \text{Nil}}{60,000} \times 100 = 6.25\%$$

Note: It is assumed that tax rate is 50% for the given company.

Illustration 14: Following are the extracts from the financial statement of M/s Urmi Ltd. as on 31st December, 2013 and 2014.

Particulars	31.12.2014 ₹	31.12.2013 ₹
Closing Stock	20,000	50,000
Debtors	40,000	40,000
Bills Receivable	20,000	10,000
Advance Receivable in Cash or Kind	4,000	10,000
Creditors	50,000	60,000
Bills Payable	30,000	40,000
Bank Overdraft	–	4,000
Cash on Hand	36,000	30,000
9% Debentures (1988)	10,00,000	10,00,000
Sales for the Year	7,00,000	6,00,000
Gross Profit	1,40,000	1,00,000

You are required to compute for each of the years:

Current Ratio (b) Liquid Ratio (c) Stock Turnover Ratio (d) Debtors Turnover Ratio (e) Stock to Working Capital Ratio and write in two to three lines your observation on these ratios.

(T.Y. B.Com, Modified)

Solution:

		1990	1991
1. Current Ratio	$= \frac{\text{Current Assets}}{\text{Current Liabilities}}$	$= \frac{1{,}40{,}000}{1{,}04{,}000}$ = 1.35 : 1	$= \frac{1{,}20{,}000}{80{,}000}$ = 1.5 : 1
2. Quick Ratio	$= \frac{\text{Quick Assets}}{\text{Qick Liabilities}}$	$= \frac{90{,}000}{1{,}00{,}000}$ = 0.9 : 1	$= \frac{90{,}000}{1{,}00{,}000}$ = 1.25 : 1
3. Debtors Turnover Ratio (a) No. of times	$= \frac{\text{Credit Sales}}{\text{Average Accounts Rec.}}$	$= \frac{6{,}00{,}000}{50{,}000}$	$= \frac{7{,}00{,}000}{55{,}000}$
Average Accounts Rec.	= Drs. + B/R	= 12 times	= 12.73 times
(b) No. of days	$= \frac{365}{\text{No. of Times}}$	$= \frac{365}{12}$ = 30.42 = 31 days (approx.)	$= \frac{365}{12.73}$ = 28.67 = 29 days (approx.)
4. Stock Turnover Ratio	$= \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$	$= \frac{5{,}00{,}000}{50{,}000}$ = 10 Times	$= \frac{5{,}60{,}000}{35{,}000}$ = 16 Times
5. Stock to Working Capital Ratio	$= \frac{\text{Colsing Stock}}{\text{Working Capital}} \times 100$	$= \frac{50{,}000}{36{,}000} \times 100$	$= \frac{20{,}000}{40{,}000} \times 100$
Working Capital	= Current Assets – C.L	= 138.89%	= 50%

Note: While calculating Stock Turnover Ratio, Average Stock is taken. However, opening stock of 1990 is not given, closing stock is taken. Hence, for 1991, closing stock is to be taken to maintain equality of the base to be compared.

Illustration 15: From the information given below, prepare a Balance Sheet in a vertical form suitable for analysis and calculate the following ratio:

(i) Capital Gearing Ratio (ii) Proprietory Ratio

(iii) Current Ratio (iv) Liquid Ratio.

Particulars	31.12.2014 ₹
Current Account with Bank of India	50,000
Land and Building	8,00,000
Advance Payments	62,000
Stock	2,73,000
Creditors	4,06,000
Debtors	5,23,000
Bills Receivable	21,000
Plant and Machinery	5,44,000
12% Debentures	2,50,000

Loan from a Director	52,000
Equity Share Capital	10,00,000
Profit and Loss Account	2,17,000
Trade Investments	20,000
Proposed Dividend	86,000
Advance Tax	1,00,000
Provision for Taxation	2,64,000
Bills Payable	18,000
General Reserve	1,00,000

(T.Y. B.Com., Modified)

Solution: **Vertical Balance Sheet**

Particulars	Amount	Amount
Source of Funds		
I. Owners' Fund		
(a) Share Capital		
Equity Share Capital	10,00,000	
(b) *Add:* Reserves and Surplus	1,00,000	
Profit & loss	2,17,000	
(c) Miscellaneous Expenses	–	13,17,000
II. Borrowed Fund		
(a) Secured Loan		
12% Debentures	2,50,000	
(b) Unsecured Loan		
Loan from Directors	52,000	3,02,000
Capital Employed		16,19,000
Application of Funds		
I. Fixed Assets		
Land and Building	8,00,000	
Plant and Machinery	5,44,000	
Investment	20,000	13,64,000
II. Working Capital		
(a) Current Assets:		
Advance Payments	62,000	
Bank Balance	50,000	
Debtors	5,23,000	
Bill Receivable	21,000	
Add: Stock	2,73,000	
Add: Prepaid Expenses Advance Tax	1,00,000	
Total Current Asset	10,29,000	
(b) *Less:* Current Liabilities:		
Creditors	4,06,000	
Proposed Dividend	86,000	
Provision for Tax	2,64,000	
Bill Payable	18,000	
	7,74,000	
∴ Working Capital		2,55,000
		16,19,000

1. $$\text{Capital Gearing Ratio} = \frac{\text{Borrowed Funds} + \text{Preference Share Capital}}{\text{Equity Holders' Funds}} = \frac{3{,}02{,}000 + \text{Nil}}{13{,}17{,}000 + \text{Nil}} = 0.23$$

2. Proprietory Ratio = $\dfrac{\text{Proprietors' Funds}}{\text{Total Assets}} \times 100$

Total Assets = Fixed Assets + Current Assets = 23,93,000

Proprietory Ratio = $\dfrac{13,17,000}{23,93,000} \times 100 = 55.035\%$

3. Current Ratio = $\dfrac{\text{Current Assets}}{\text{Current Liabilities}} = \dfrac{10,29,000}{7,74,000} = 1.33 : 1$

4. Liquid Ratio = $\dfrac{\text{Quick Assets}}{\text{Quick Liabilities}}$

Quick Assets = Current Assets – Stock – Prepayment
= 10,29,000 – 2,73,000 – 1,00,000 – 62,000 = 5,94,000

Quick Liabilities = Current Liabilities – Overdraft to the Extent Advance Tax Paid
= 7,74,000 – 1,00,000 = 6,74,000

$\therefore$ Liquid Ratio = $\dfrac{5,94,000}{6,74,000} = 0.88 : 1$

Illustration 16: Rearrange the Balance Sheet given below in a vertical form suitable for analysis and calculate the following:

(i) Current Ratio (ii) Liquid Ratio
(iii) Capital Gearing Ratio (iv) Proprietory Ratio.

Liabilities	₹	Assets	₹
Preference Share Capital	2,00,000	Goodwill	30,000
Equity Share Capital	4,00,000	Building	3,00,000
12% Debentures	3,00,000	Machinery	2,60,000
Bank Overdraft	1,14,000	Stock	3,89,000
Creditors	78,000	Debtors	4,00,000
Income Tax Provision	30,000	Prepaid Expenses	5,000
General Reserve	2,00,000	Bank Balance	1,000
	28,000	Preliminary Expenses	25,000
	60,000		
	14,10,000		14,10,000

(T.Y. B.Com., Modified)

Solution: **In the Books of Vertical Balance Sheet as at ______**

Particulars	Amount	Amount	Amount
Sources of Fund			
(I) Owners' Fund			
(a) Share Capital			
Equity Share Capital	4,00,000		
Preference Share Capital	2,00,000	6,00,000	
(b) *Add:* Reserves and Surplus			
General Reserve	2,00,000		
Profit and Loss Account	28,000	2,28,000	
(c) *Less:* Miscellaneous Expenditure and Fictitious Assets			
Preliminary Expenses		25,000	8,03,000
(II) Borrowed Fund			
(a) Secured Loan			

12% Debentures		3,00,000	
(b) Unsecured Loan			
Capital Employed		–	3,00,000
			11,03,000
Applications of Fund			
(I) Fixed Assets			
(a) Tangible Assets			
Building	3,00,000		
Machinery	2,60,000	5,60,000	
(b) Intangible Assets			
Goodwill		30,000	
(c) Capital W.I.P.		–	5,90,000
(II) Working Capital			
(a) Current Assets:			
Bank	1,000		
Debtors	4,00,000		
Quick Assets	4,01,000		
Add: Stock	3,89,000		
Add: Prepaid Expenses	5,000	7,95,000	
(b) *Less:* Current Liabilities:			
Creditors	78,000		
Income Tax Provision	30,0000		
Proposed Divided	60,000		
Quick Liabilities	1,68,000		
Add: Bank OD	1,14,000	2,82,000	
Working Capital			5,13,000
Total Assets			**11,03,000**

(i) Current Ratio $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}} = \dfrac{7{,}95{,}000}{2{,}82{,}000} = 2.82 : 1$

(ii) Liquid Ratio $= \dfrac{\text{Quick Assets}}{\text{Quick Liabilities}} = \dfrac{4{,}01{,}000}{1{,}68{,}000} = 2.39 : 1$

(iii) Capital Gearing Ratio $= \dfrac{\text{Borrowed Funds} + \text{Preference Share Capital}}{\text{Equity Holders Funds}} = \dfrac{3{,}00{,}000 + 2{,}00{,}000}{8{,}03{,}000 - 2{,}00{,}000}$

$$= \frac{5{,}00{,}000}{6{,}03{,}000} = 0.829 : 1$$

(iv) Proprietory Ratio $= \dfrac{\text{Owners' Funds}}{\text{Total Assets}} \times 100$

Total Assets = Fixed Assets + Current Assets = 5,90,000 + Nil + 7,95,000 = 13,85,000

Proprietory Ratio $= \dfrac{8{,}03{,}000}{13{,}85{,}000} \times 100 = 57.98\%$

Illustration 17: The following is the incomplete Trading Account of M/s Sameena Ltd. for the year ended 31st March, 2011.

Dr. **Trading Account** **Cr.**

Particulars		₹	Particulars		₹
To Opening Stock		?	By Sales:		
To Purchases:			Cash	?	
Cash	?		Credit	?	?
Credit	?	?	By Goods Destroyed by Fire		50,000
To Gross Profit c/f		?	By Closing Stock		?
		?			?

The following information is available:

(i) Creditors ₹ 3,00,000, Bills payable ₹ 2,00,000 and Debtors ₹ 2,00,000.
(ii) Debtors Turnover Ratio 30 days (360 days in a year).
(iii) Total Sales ₹ 32,00,000.
(iv) Gross Profit Ratio 25%
(v) Creditors Turnover Ratio 4 times.
(vi) Stock Turnover Ratio 4.8 times.
(vii) Opening Stock is ₹ 50,000 higher than the closing stock.

You are required to complete the above Trading Account.

Solution: **Trading A/c**

Particulars	₹	₹	Particulars	₹	₹
To Opening Stock		5,25,000	By Sales		
To Purchases			Cash	8,00,000	
Cash	4,00,000		Credit	24,00,000	32,00,000
Credit	20,00,000	24,00,000	By Goods Destroyed by Fire		50,000
To Gross Profit c/d		8,00,000	By Closing Stock		4,75,000
		37,25,000			37,28,000

(i) Total Sales 32,00,000

Gross Profit = 25%

= 8,00,000

(ii) Debtors Turnover $= \dfrac{2,30,000}{30} \times 360$

Credit Sales = 24,00,000

Total Sales 32,00,000

– Credit Sales 24,00,000

Cash Sales 8,00,000

(iii) Creditors Turnover = 4

$$4 = \frac{\text{Credit Purchases}}{5,00,000}$$

Credit Purchases = 20,00,000

$$\text{Stock TO} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

Cost of Goods Sold = Sales – Gross Profit

= 32,00,000 – 8,00,000

= 24,00,000

$$= \frac{24,00,000}{\text{Average Stock}} = 4.8$$

$$\text{Average Stock} = \frac{24,00,000}{4.8}$$

= 5,00,000

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2}$$

$$5,00,000 = \frac{50,000 + x + x}{2}$$

10,00,000 = 50,000 + x + x

10,00,000 = 50,000 + 2x

$$2x = 10{,}000 - 50{,}000$$
$$= 9{,}50{,}000$$
$$x = \frac{9{,}50{,}000}{2}$$
$$= 4{,}75{,}000$$
$$\text{Opening Stock} = 4{,}75{,}000 + 50{,}000$$
$$= 5{,}25{,}000$$

Illustration 18: Complete the following Balance Sheet of ABC Ltd. with the help of accounting ratios:

Balance Sheet as on 31st March, 2010

Liabilities	₹	Assets		₹
Share Capital	?	Fixed Assets		?
Reserve and Surplus	80,000	Current Assets:		
Sundry Creditors	?	Stock	?	
Bank Overdraft	?	Debtors	?	
		Cash Balance	?	

(a) Cash Balance is 10% of total current assets.
(b) Fixed Assets to working capital 3 : 1
(c) Current Ratio 2.5 : 1
(d) Quick Ratio 1.5 : 1
(e) Working Capital is ₹ 60,000/-
(f) Working Capital/Bank Overdraft 6 : 1

Solution:

ABC Ltd.

Balance Sheet as on 31st March 2010

Liabilities	₹	Assets		₹
Share Capital	1,60,000	Fixed Assets		1,80,000
Reserves and Surplus	80,000	Current Assets:		
Current Liabilities:		Stock	55,000	
Sundry Creditors	30,000	Debtors	35,000	
Bank Overdraft	10,000	Cash	10,000	1,00,000
	2,80,000			2,80,000

Working Note:

1. Current Ratio $= 2.5 : 1 = CA - CL = WC = 2.5 - 1 = 1.5 =$ ₹ 60,000
   CA = ₹ 1,00,000 and CL = ₹ 40,000
2. Cash Balance = 10% of ₹ 1,00,000. = ₹ 10,000
3. Bank Overdraft $= \frac{\text{Working Capital}}{\text{BOD}} = 6:1 = \frac{60{,}000}{1} =$ ₹ 10,000
4. Creditors = CL – BOD = 40,000 – 10,000 = ₹ 30,000
5. Fixed Assets $= \frac{\text{Fixed Assets}}{\text{Working Capital}} = 3:1 = 60{,}000 \times 3 =$ ₹ 1,80,000
6. Debtors = Quick Ratio = 1,5:1 = 30,000 × 1.5 = 45,000 – 10,000 = 35,000
7. Stock = 1,00,000 – 10,000 – 35,000 = 55,000
8. Share Capital = Total of Balance Sheet = 2,80,000 – 10,000 – 30,000 – 80,000 = 1,60,000

Illustration 19: Complete the following Balance Sheet of XYZ Ltd. with the help of accounting ratios:

Balance Sheet as on 31-3-2010

Liabilities	₹	Assets	₹
Equity Share Capital	?	Fixed Assets	?
General Reserve	20,000	Investment	1,00,000

Loan Fund	?	Current Assets:		
Current Liabilities	?	Stock	?	
		Debtors	?	
	–	Cash Balance	?	?
	?			?

1. Debtors Turnover 8 times
2. Stock Turnover 8 times
3. Debt/Net Worth 0.6
4. Fixed Assets/Shareholder's Fund 0.6
5. Total Sales (Credit)/General Reserve 32 times
6. Gross Profit Ratio 25%
7. Current Ratio 2
8. General Reserve/Net Worth 0.1
9. Bank Balance is 30% of Total Current Assets

Solution: **XYZ Ltd. Balance Sheet as on 31-03-2010**

Liabilities	₹	₹	Assets	₹	₹
Equity Share Capital (W.N. 1)		1,80,000	Fixed Assets (W.N. 5)		1,20,000
General Reserve		20,000	Investment		1,00,000
Current Liabilities:			Current Liabilities:		
Loan Fund (W.N. 2)		1,20,000	Stock (W.N. 3)	60,000	
Current Liabilities (W.N. 7)		1,00,000	Debtors (W.N. 4)	80,000	
		–	Bank Balance (W.N. 6)	60,000	2,00,000
		4,20,000			4,20,000

Working Note:

1. $$\frac{\text{General Reserve}}{\text{NetWorth}} = \frac{1}{10}$$

$$\text{Net Worth} = 20{,}000 \times 10 = 2{,}00{,}000$$

$$\text{Net Worth} = \text{Equity Share Capital} + \text{General Reserve}$$

$$\text{Equity Capital} = \text{Net Worth} - \text{General Reserve}$$

$$= 2{,}00{,}000 - 20{,}000$$

$$= 1{,}80{,}000$$

2. $$\frac{\text{Debt}}{\text{Net Wor}} = \frac{6}{10}$$

$$\text{Debt} = \frac{6}{10} \times \text{Net Worth}$$

$$= \frac{6}{10} \times 2{,}00{,}000$$

$$= 1{,}20{,}000$$

3. $$\frac{\text{Total Sales}}{\text{General Reserve}} = 32$$

$$\text{Total Sales} = 32 \times \text{General Reserve}$$

$$= 32 \times 20{,}000$$

$$= 6{,}40{,}000$$

$$\text{Gross Profit Ratio} = \frac{\text{COGS}}{\text{Closing Stock}}$$

$$= \frac{4{,}80{,}000}{\text{Closing Stock}}$$

$= 8$

$$\text{Closing Stock} = \frac{4,80,000}{8}$$

$= 60,000$

4. $$\text{Debtors Turnover} = \frac{\text{Credit Sales}}{\text{Debtors}}$$

$$= \frac{6,40,000}{\text{Debtors}} = 8$$

Debtors $= 80,000$

5. $$\frac{\text{Fixed Assets}}{\text{Shareholders' Fund}} = \frac{6}{10}$$

$$\text{Fixed Assets} = \frac{6}{10} \times \text{Shareholders' Fund}$$

$$= \frac{6}{10} \times 2,00,000$$

$= 1,20,000$

6. Current Assets = Stock + Debtors + Bank Balance
   Let Current Assets = 100 × Bank Balance = 30x and Stock + Debtors = 70x
   Stock + Debtors = 60,000 + 80,000
   = 1,40,000 = 70x
   x = 20,000
   30x = 60,000 = Bank Balance

7. $$\frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{2}{1}$$

$$\text{Current Liabilities} = \frac{\text{Current Assets}}{2}$$

$$= \frac{2,00,000}{2}$$

$= 1,00,000$

Illustration 20: The following financial information of Prasad Ltd .is available for the year ended 31st March, 2010.

Current Ratio	2.5
Quick Ratio	1.5
Fixed Assets to Proprietor's Fund	0.6
Gross Profit Ratio	25%
Stock Turnover Ratio	5 times
Debtors Collection Period (360 days in a year)	45 days
Net Profit Ratio (NPAT)	15%
Equity Share Capital (₹ 10 each)	₹ 2,00,000
Working Capital	₹ 1,56,000
Bank Overdraft	` 24,000
Fictitious Assets and Loan Fund	Nil
Fixed Assets	₹ 2,34,000

There were also free reserve bought forward from earlier year. Current Assets included stock, debtors and cash only.

Closing stock was 25% higher than opening stock.

All the Purchases and Sales are on credit basis.

Prepare Balance Sheet from the above information.

Solution:

Prasad Ltd.
Balance Sheet as on 31st March, 2010

Liabilities	₹	Assets	₹
Share Capital (given)	2,00,000	Fixed Assets (given)	2,34,000
Reserve (Balance Figure)	64,000	Stock	1,40,000
Profit and Loss A/c	1,26,000	Debtors	1,05,000
Quick Liabilities	80,000	Cash-in-hand	15,000
Bank Overdraft (given)	24,000		–
	4,94,000		4,94,000

Working Note

1. Current Ratio = $\frac{\text{C.A}}{\text{C.L}} = \frac{2.50}{1}$ C.A. = 2.5 × C.L.

   Working Capital = C.A. – C.L. = 2.5 C.L. – C.L. = 1.5 C.L. = 1,56,000

   Current Liabilities = $\frac{1,56,000}{1.5}$ = ₹ 1,04,000

   Quick Liabilities = C.L. – Bank Overdraft = 1,04,000 – 24,000 = ₹ 80,000

   Current Assets = 2.5 × C.L. = 2.5 × 1,04,000 = ₹ 2,60,000

2. Quick Ratio = $\frac{\text{Q.A.}}{\text{Q.L.}} = \frac{1.5}{1}$ Quick Assets = 1.5 × Q.L. = 1.5 × 80,000 = ₹ 1,20,000

   Closing Stock = Current Assets – Quick Assets = 2,60,000 – 1,20,000 = ₹ 1,40,000

   Opening Stock = 1,40,000 × $\frac{100}{125}$ = ₹ 1,12,000

   Average Stock = $\frac{1,12,000 + 1,40,000}{2}$ = ₹ 1,26,000

   Stock Turnover Ratio = C.O.G.S./Average Stock = 5

   C.O.G.S = 5 × Average Stock = 5 × 1,26,000 = ₹ 6,30,000

   Gross Profit Ratio = 25%, C.O.G.S./Sales × 100 = 75%,

   Total Sales = 6,30,000/75 × 100 = ₹ 8,40,000

   Debt Collection Period = 360/Credit Sales × Debtors = 45

   Debt = 45 × $\frac{8,40,000}{360}$ = ₹ 1,05,000

   Current Assets = Closing Stock + Debt + Cash Balance

   2,60,000 = 1,40,000 + 1,05,000 + Cash Balance   Cash Balance = ₹ 15,000

3. Net Profit Ratio = 15% = 8,40,000 × 15%   Net Profit = ₹ 1,26,000

4. Fixed Assets/Proprietor's Fund = 0.6 : 1   Proprietor's Fund = Fixed Assets × 0.60

   = 2,34,000 × 0.60

   = ₹ 3,90,000

   Proprietor's Fund = Share Capital + Reserves + Profit and Loss A/c Balance

   3,90,000 = 2,00,000 + Reserve + 1,26,000

   Reserve = ₹ 64,000

Illustration 21: From the following information for the year ended 31st March, 2010 of M/s Nitin Ltd., prepare Balance Sheet with as many details as possible.

Current Ratio	2
Gross Profit Ratio	25%
Debtors Turnover	4 times
Cost of Goods Sold to Creditors (COGS/Creditors)	6
Stock Turnover (Cost of Goods Sold/Closing Stock)	6 times
Cash Balance is 10% of Total Current Asset (Including Cash)	

Fixed Asset at cost	₹ 6,00,000
Accumulated Depreciation on Fixed Assets	1/4th of cost
Current Liabilities	₹ 1,25,000
Reserve and Surplus is 25% of Equity Share Capital	
Debt Equity Ratio (Debt/Equity)	2:3

All purchases and sales are on credit basis.

Current liabilities include only Creditors and Bills Payable.

Solution:

1. Let Sales = 100x
   C.O.G.S. = $\underline{75x}$
   G.P. = 25x
2. Current Liabilities = 1,25,000 Current Ratio = 2: 1
   Current Assets = 1,25,000 × 2 = 2,50,000
   Cash Balance = 10% × 2,50,000 = 25,000
3. Debtors Turnover Ratio = $\frac{\text{Total Credit Sales}}{\text{Dr.s}} = 4 \quad \frac{100x}{4} = \text{Debtors}$

   Debtors – 25x
4. Stock Turnover Ratio = $\frac{\text{C.O.G.S}}{\text{Clo sin g Stock}} = 6 \quad \frac{75x}{6} = \text{Clo sin g Stock}$

   Closing Stock = 12.5x

Illustration 22: Complete the Income statement and the Balance Sheet given below with the help of the following ratios and further information given.

Income Statement as on 31st March, 2008

Particulars	Amount ₹	Amount ₹
Sales		?
Less: Cost of Sales:		
Opening Stock	?	
Purchases	?	
	?	
Less: Closing Stock	?	
Cost of Sales		?
Gross Profit		?
Less: Expenses		?
Net Profit before Tax		?
Less: Income Tax Provision (@ 50 on NPBT)		?
Net Profit after Tax		?
Add: Opening Balance		10,000
Less: Appropriation		
Proposed Dividends		60,000
Balance transferred to Balance Sheet		?

Balance Sheet as at 31st March, 2008

Funds Available		
Shareholders' Fund		
Share Capital		?
Add: Reserves and Surplus (including P & L A/c balance)		2,00,000
		5,00,000
Borrowed Fund		
Secured Loans		?
Total Funds		?
Funds Applied		
Fixed Assets		2,00,000

Working Capital		
Current Assets		
Closing Stock	1,00,000	
Debtors	?	
Other Current Assets	?	
Total Current Assets		?
Less: Current Liabilities		
Creditors	?	
Provision for Income Tax (Current Year)	?	
Provision Dividend (Current Year)	?	
Total Current Liabilities		?
Working Capital		?
Total Funds		?

Other Information:

1. Gross Profit Ratio 30%
2. Net Profit after Tax Ratio 12.50%
3. Stock Turnover Ratio (on Average Stock) 10
4. Debtors Turnover Ratio 2
5. Net Profit after Tax/Shareholders' Fund * 100 20%
6. Current Ratio 2
7. Creditors Turnover Ratio 2.5

Solution: **Income Statement for the year ended 31st March, 2008**

Particulars	Amount ₹	Amount ₹
Sales		8,00,000
Less: Cost of sales:		
Opening Stock	12,000	
Purchases	6,48,000	
Less: Closing Stock	6,60,000	
Gross Profit	1,00,000	5,60,000
		2,40,000
Less: Expenses		40,000
Net Profit before Tax		2,00,000
Less: Income Tax Provision		1,00,000
Net Profit after Tax		1,00,000
Add: Opening Balance		10,000
		1,10,000
Less: Appropriation		
Proposed Dividends		60,000
Balance carried to Balance Sheet		50,000

Balance Sheet as on 31st March, 2008

Particulars	₹	₹	₹
Funds Available:			
Shareholders' Fund:			
Share Capital		3,00,000	
Add: Reserves and Surplus		2,00,000	5,00,000
Loan Fund			
Secured Loans			1,19,200
Total			6,19,200
Funds Applied			
Fixed Assets			2,00,000
Working Capital			
Current Assets:			
Closing Stock	1,00,000		
Debtors	4,00,000		

Other Current Assets	3,38,400	8,38,400	
Total Current Assets			
Less: **Current Liabilities**			
Creditors		2,59,200	
Provision for Income Tax	1,00,000		
Provision for Dividend	60,000		
Total Current Liabilities		4,19,200	
Working Capital			4,19,200
Total			6,19,200

Working Note:

1. N.P. after Tax to Shareholders' Fund = 20% Shareholders' Fund ₹ 5,00,000.

   N.P. = 20% of ₹ 5,00,000
   = 1,00,000

2. Share Capital = 5,00,000 – 2,00,000
   = 3,00,000

3. N.P. before Tax = N.P. after Tax + Provision for Tax

   100 = 50 + 50

   Provision for Tax = N.P. after Tax
   = 1,00,000

   N.P. before Tax = 1,00,000 + 1,00,000
   = 2,00,000

4. G.P. Ratio = 30% of Sales

   Sales = 100

   G.P. = 30

   COGS = 70

5. N.P. after Tax Ratio = 12.50%

   N.P. after Tax = ₹ 1,00,000

   Sales = $\frac{100}{12.50} \times 1,00,000$
   = 8,00,000

   G.P. = 30% of Sales
   = 30% of 8,00,000
   = 2,40,000

   COGS = Sales – GP
   = 8,00,000 – 2,40,000
   = 5,60,000

6. Creditors Turnover = $\frac{\text{Purchases}}{\text{Creditors}} = 2.5$

   = $\frac{6,48,000}{\text{Creditors}} = 2.5$

   Creditors = $\frac{6,48,000}{2.5} = 2,59,200$

7. Debtors Turnover Ratio = $\frac{\text{Sales}}{\text{Debtors}}$

   = $\frac{8,00,000}{\text{Debtors}} = 2$

   Debtors = $\frac{8,00,000}{2}$

$= 4{,}00{,}000$

Stock Turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Average Stock}}$

$= \dfrac{5{,}60{,}000}{\text{Average Stock}} = 10$

Average Stock $= \dfrac{5{,}60{,}000}{10}$

$= 56{,}000$

Average Stock $= \dfrac{\text{Opening Stock} + \text{Closing Stock}}{2}$

56,000 $= \dfrac{\text{Opening Stock} + 1{,}00{,}000}{2}$

1,12,000 = Opening Stock + 1,00,000

Opening Stock = 1,12,000 – 1,00,000

= 12,000

8. 6,60,000 = Opening Stock + Purchases

Purchases = 6,60,000 – 12,000

= 6,48,000

Current Liabilities = Creditors + Provision for Tax + Provision for Dividend

= 2,59,200 + 1,00,000 + 60,000

= 4,19,200

9. Current Ratio = 2

Current Liabilities = 4,19,200

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

$= \dfrac{\text{Current Assets}}{4{,}19{,}200} = 2$

Current Assets = 8,38,400

10. Other Current Assets = Total Current Assets – Closing Stock – Debtors

= 8,38,400 – 1,00,000 – 4,00,000

= 3,38,400

11. Working Capital = Current Assets – Current Liabilities

= 8,38,400 – 4,19,200

= 4,19,200

12. Total Fund = Fixed Assets + Working Capital

= 2,00,000 + 4,19,200

= 6,19,200

13. Loan Fund = Total Fund – Shareholders' Fund

= 6,19,200 – 5,00,000

= 1,19,200

Illustration 23: From the following information, find out missing and rewrite the Balance Sheet.

Current Ratio 2 : 1

Acid Test Ratio 5 : 3

Reserves and Surplus are 50% of Equity Share Capital

Long-term Debts are 60% of Equity

Stock Turnover Ratio 10 times

Gross Profit Ratio on Sales 20%
Sales are ₹ 15,62,500 (25% Cash sales and balance on credit)
Closing stock is ₹ 50,000 more than Opening Stock
Accumulated depreciation is 1/6th of original Cost of Fixed Assets.

Balance Sheet as at March, 2007

Liabilities	₹	Assets		₹
Equity Share Capital	?	Fixed Assets (at cost)	?	
Reserves and Surplus	?	*Less:* Accumulated Deprecation	?	?
Long-term Loans	9,00,000	Stock		?
Bank Overdraft	50,000	Debtors		2,00,000
Creditors	?	Cash		?
	?			?

Solution:

Liabilities	W.N.	₹	Assets	W.N.	₹
Equity Share Capital	5	10,00,000	Fixed Assets (at Cost)		26,40,000
Reserves and Surplus	5	5,00,000	*Less*: Accumulated Depreciation		
Long-term Loans		9,00,000	(1/6th on Cost)		4,40,000
Bank Overdraft		50,000			22,00,000
Creditors	4	1,50,000	Stock	3	1,50,000
			Debtors		2,00,000
		–	Cash	4	50,000
		26,00,000			26,00,000

Working Note:

1. Cost of Goods Sold $= \text{Sales} - \text{G.P.}$
   $= 15{,}62{,}500 - 3{,}12{,}500$
   $= 12{,}50{,}000$

2. Stock Turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Average Stock}} = 10 \text{ times}$

   Average Stock $= \dfrac{12{,}50{,}000}{10} = 1{,}25{,}000$

3. Average Stock $= \dfrac{\text{Opening Stock} + \text{Closing Stock}}{2}$

   Closing Stock is 50,000 more than Opening Stock.

   Average Stock $= \dfrac{\text{Opening Stock} + \text{Opening Stock} + 50{,}000}{2}$

   1,25,000 $= \dfrac{2\,\text{Opening Stock} + 50{,}000}{2}$

   Opening Stock $= \dfrac{2{,}50{,}000 - 50{,}000}{2} = 1{,}00{,}000$

   Closing Stock $= 1{,}00{,}000 + 50{,}000 = 1{,}50{,}000$

4. Current Ratio $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}} = 2$

   Acid Test Ratio $= \dfrac{\text{Q.A.}}{\text{Q.L.}} = \dfrac{\text{C.A.} - \text{Stock}}{\text{C.L.} - \text{Bank Overdraft}} = \dfrac{5}{3}$

$$\frac{\text{C.A.}-1,50,000}{\text{C.L.}-50,000}=\frac{5}{3}$$

3 (C.A. – 1,50,000) = 5 (C.L. – 50,000)

C.A. are two times of C.L.

C.A. = 2 C.L.

3 (2 C.L. – 1,50,000) = 5 (C.L. – 50,000)

6 C.L. – 4,50,000 = 5 C.L. – 2,50,000

C.L. = 4,50,000 – 2,50,000

C.L. = 2,00,000

Q.L. = Creditors

Creditors = C.L. – Bank OD = 2,00,000 – 50,000

Q.L. = 1,50,000

Q.A. : Q.L.

5 : 3

$$\text{Q.A.} = \frac{5}{3}\times 1,50,000$$

= 2,50,000

Cash = Q.A. – Debtors = 2,50,000 – 2,00,000 = 50,000

5. Long-term Debts are 60% of Equity

Long-term Loans are ₹ 9,00,000

$$\text{Equity} = \frac{9,00,000}{60}\times\frac{100}{1}=15,00,000$$

Equity = Equity Share Capital + Reserves and Surplus

Reserves and Surplus are 50% of Equity share Capital

Equity Capital	100
Add: Reserves and Surplus (50%)	50
Equity	150

$$\text{Equity Share Capital}=\frac{15,00,000}{150}\times\frac{100}{1}=10,00,000$$

R & S = Equity – Equity Capital

= 15,00,000 – 10,00,000

= 5,00,000

Total Liabilities = Equity + Loan + Bank OD + Creditors

= 15,00,000 + 9,00,000 + 50,000 + 1,50,000

= 26,00,000

6. Total Liabilities – C.A. = W.D.V. of Fixed Assets

26,00,000 – 4,00,000 = 22,00,000

Accumulated Depreciation is 1/6th of Cost

If cost is 6. Depreciation is 1 and W.D.V. is 5,

$$\text{Cost of F.A.} = \frac{22,00,000}{5}\times\frac{6}{1}=26,40,000$$

$$\text{Accumulated Depreciation} = \frac{1}{6}\times 26,40,000=4,40,000$$

Illustration 24: While preparing the financial statements for the year ended 31-3-2009 of XYZ Ltd., it was discovered that a substantial portion of the records were missing. However, the account was able to gather the following data:

Liabilities	₹	₹	Assets	₹	₹
Paid-up Share Capital			Land		3,60,000
Shares of ₹ 10 each)		6,00,000	Plant & Machinery:		
Reserves and Surplus:			Cost	9,00,000	
Balance on 1-4-2008	1,80,000		*Less*: Depreciation	3,60,000	5,40,000
Add: Transfer during the year	1,20,000	3,00,000	Current Assets:		
10% Loan		6,00,000	Stock	?	
Current Liabilities:			Debtors	?	
Proposed Dividend	?		Cash and Bank	?	?
Provision for Tax	?				
Creditors	?	6,00,000			–
		?			?

The following other information is available:

Current Ratio	2 : 1
Cash and Bank	30% of Total Current Assets
Debtors Turnover (Sales/Debtors)	12 Times
Stock Turnover (Cost of Goods Sold/Stock)	12 Times
Creditors Turnover (Cost Goods Sold/Creditors)	12 Times
Gross Profit Ratio on Sales	25
Proposed Dividend	20%

You are required to complete the balance sheet as on 31-3-2009 with available information. Working notes shall form part of your answer.

Solution: **Balance Sheet as on 31st March, 2009**

Liabilities	₹	₹	Assets	₹	₹
Paid-up Share Capital			Land		3,60,000
(60,000 Equity Shares of			Plant & Machinery		
₹ 10 each)		6,00,000	Cost	9,00,000	
Reserves and Surplus:			*Less:* Depreciation	3,60,000	5,40,000
Balance on 1-4-2008	1,80,000		Current Assets:		
Add: Transfer during the year	1,20,000	3,00,000	Stock (WN 5)	3,60,000	
10% Loan		6,00,000	Debtors (WN 5)	4,80,000	
Current Liabilities:			Cash & Bank (WN 2)	3,60,000	
Proposed Dividend (WN 7)	1,20,000		Total (WN 1)		12,00,000
Provision for Tax (WN 8)	1,20,000				
Creditors (WN 6)	3,60,000	6,00,000			–
		21,00,000			21,00,000

Working Note:

1. Current Ratio $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

$$\frac{2}{1} = \frac{\text{Current Assets}}{6,00,000}$$

$\therefore$ Current Assets $= 6,00,000 \times 2 = 12,00,000$

2. Cash/Bank = 30% Total Current Assets
   = 30% 12,00,000

   Cash/Bank = 3,60,000

3. Gross Profit Ratio on Sales = 25% on Sales = 25x

   $\therefore$ Cost of Goods Sold = Sales – Gross Profit
   = 100x – 25x

   $\therefore$ Cost of Goods Sold = 75x

4. Stock Turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Stock}}$

$12 = \dfrac{75x}{\text{Stock}}$

$\therefore$ Stock $= \dfrac{75x}{12}$

5. Debtors Turnover $= \dfrac{\text{Sales}}{\text{Debtors}}$ (Let Sales = 100x)

$12 = \dfrac{100x}{\text{Debtors}}$

$\therefore$ Debtors $= \dfrac{100x}{12} = \text{Stock} = \dfrac{75x}{12}$

$\therefore$ Debtors = 100x

Stock = 75x

But, Debtors + Stock + Cash = Current Assets

Debtors + Stock + 3,60,000 = 12,00,000

$\therefore$ Debtors + Stock = 12,00,000 – 3,60,000

100x + 75x = 8,40,000

175x = 8,40,000

$x = \dfrac{8,40,000}{175} = 4,800$

$\therefore$ Debtors = 100x = 100 × 4,800 = ₹ 4,80,000

Stock = 75x = 75 × 4,800 = ₹ 3,60,000

6. Creditors Turnover $= \dfrac{\text{Cost of Goods Sold}}{\text{Creditors}}$

$12 = \dfrac{75x}{\text{Creditors}}$

$\therefore$ Creditors $= \dfrac{75x}{12}$ = Stock (See 4th working)

$\therefore$ Creditors = Stock

$\therefore$ Creditors = 3,60,000

7. Proposed Dividend = 20% (Share Capital)

= 20% (6,00,000) = ₹ 1,20,000

8. Provision for Tax = Current Liabilities – Creditors – Proposed Dividend

= 6,00,000 – 3,60,000 – 1,20,000

= ₹ 1,20,000

Illustration 25: From the following information, calculate inventory turnover ratios.

Particulars	₹
Opening Stock:	
Raw Material	12,000
WIP	20,000
Finished Goods	30,000
	62,000
Raw Material Purchased	1,00,000
Direct Wages – Paid	70,000
Outstanding	20,000

Production Expenses – Paid	10,000
Outstanding	10,000
Depreciation	50,000
	2,60,000
Closing Stock:	
Raw Material	24,000
WIP	10,000
Finished Goods	20,000
	54,000

(T.Y. B.Com., Modified)

Solution: Working Note:

Cost of Goods Sold

Opening Stock	62,000
Add: Purchases	1,00,000
Add: Wages (70,000 + 20,000)	90,000
Add: Production Expenses	70,000
Less: Closing Stock	54,000
Cost of Goods Sold	2,68,000

(a) Average Stock of Finished Good $= \dfrac{\text{Opening Stock} + \text{Closing Stock}}{2} = \dfrac{30{,}000 + 20{,}000}{2}$

$= \dfrac{50{,}000}{2} = 25{,}000$

Inventory Turnover Ratio $= \dfrac{\text{Cost of Goods Sold}}{\text{Average Stock}} = \dfrac{2{,}68{,}000}{25{,}000} = 10.7$ times

Illustration 26: The following information are available for a firm for the year ended 31.01.2009:

(a)	Gross Profit Ratio	25%
(b)	Net Profit Ratio	20%
(c)	Stock Turnover Ratio	10 times
(d)	Net Profit/Capital	1/5
(e)	Capital/Other Liabilities	1/2
(f)	Fixed Asset/Capital	5/4
(g)	Fixed Asset/Current Assets	5/7
(h)	Fixed Assets	₹ 5,00,000
(i)	Stock at the end	₹ 40,000 more than the stock in the beginning

Find out:

(a) Cost of Goods Sold
(b) Gross Profit
(c) Net Profit
(d) Current Assets
(e) Capital
(f) Total Liabilities
(g) Closing Stock
(h) Total Assets

Solution:

Fixed assets (Given) = ₹ 5,00,000

1. $\dfrac{\text{Fixed assets}}{\text{Capital}} = \dfrac{5}{4} \therefore \dfrac{5{,}00{,}000}{\text{Capital}} = \dfrac{5}{4} \therefore \text{Capital} = \dfrac{5{,}00{,}000 \times 4}{5} = 4{,}00{,}000$

2. $\dfrac{\text{Fixed assets}}{\text{Current assets}} = \dfrac{5}{7} \therefore \dfrac{5{,}00{,}000}{\text{Current assets}} = \dfrac{5}{7} \therefore \text{Current assets} = \dfrac{5{,}00{,}000 \times 7}{5} = 7{,}00{,}000$

3. $\frac{\text{Capital}}{\text{Other liabilities}} = \frac{1}{2} \therefore \frac{4,00,000}{\text{Other liabilities}} = \frac{1}{2} \therefore \text{Other liabilities} = \frac{4,00,000 \times 2}{1} = 8,00,000$

4. $\frac{\text{Net profit}}{\text{Capital}} = \frac{1}{5} \therefore \frac{\text{Net profit}}{4,00,000} = \frac{1}{5} \therefore \text{Net profit} = \frac{4,00,000 \times 1}{5} = 80,000$

5. Net profit ratio = 20%

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100 \therefore 0.20 = \frac{80,000}{\text{Net Sales}} \therefore \text{Net Sales} = \frac{80,000}{0.20} = 4,00,000$$

6. G.P. Ratio = 25% on sales = $\frac{25}{100} \times 4,00,000 = 1,00,000$

7. Cost of goods sold = Sales – GP = 4,00,000 – 1,00,000 = 3,00,000

Illustration 27: From the following information, determine Debtors Turnover and Average Collection Period.

Particulars	₹
Sales (40% Cash Sales) during 2013-14	6,00,000
Debtors as on 1.4.2013	50,000
Cash Collections	3,20,000
Discount	5,000
Bad Debt	5,000
Return	10,000
Take 1 year = 360 days	

(T.Y. B.Com., Modified)

Solution: **Debtors Accounts**

Particulars	₹	Particulars	₹
To Opening Balance b/d	50,000	By Cash	3,20,000
To Credit Sales (60% of 6,00,000)	3,60,000	By Discount	5,000
		By Bad Debts	5,000
		By Sales Return	10,000
		By Closing Balance	70,000
	4,10,000		**4,10,000**

Debtors Turnover Ratio

(a) No. of times = $\frac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$

Average Accounts Receivable $= \frac{\text{Opening Debtors} + \text{Closing Debtors}}{2} = \frac{50,000 + 70,000}{2}$

$= \frac{1,20,000}{2} = 60,000$

No. of times = $\frac{3,60,000}{60,000} = 6$ times

(b) No. of days = $\frac{\text{Average Accounts Receivable}}{\text{Credit Sales}} \times 360 = \frac{60,000}{3,60,000} \times 360 = 60$ days

Illustration 28: (a) From the following details, prepare statement of working capital with as many details as possible:

1.	Stock Turnover Ratio	6
2.	Gross Profit Ratio	20%
3.	Debtors Turnover Ratio	2 months

4. Creditors Turnover Ratio 73 days
5. Gross Profit ₹ 60,000/-
6. Closing Stock was ₹ 5,000/- in excess of opening stock

(b) Calculate detailed working capital from following information:

1.	Current Ratio	2.5
2.	Liquid Ratio	1.5
3.	Stock Turnover Ratio (Cost of Sales/Closing Stock)	6 times
4.	Debtors Collection Period	2 months
5.	Gross Profit Ratio	20%
6.	Net Working Capital	₹ 3,00,000/-

(There is no bank overdraft or prepaid expenses).

Solution: **Statement of Working Capital**

Particulars	W.N.	₹
Current Assets		
Stock	(2)	42,500
Debtors		50,000
Gross Working Capital		92,500
Less: Creditors		49,000
Working Capital		43,500

Working Note:

(a)

1. Total Sales $= 60,000 \times \frac{100}{20} = 3,00,000$
2. Cost of Sales $= 3,00,000 - 20\% = 2,40,000$
   ($\therefore$ Debtors for 2 months = ₹ 50,000/-) (3)
3. Average Stock $= 2,40,000 \div 6 = 40,000$
   Closing Stock $= 40,000 + \frac{5,000}{2} = (1)\ 42,500$
4. Creditors = Cost of Sales + Increase in Stock = Purchase
   $= 2,40,000 + 5,000 = 2,45,000$
   Creditors : 73 days purchases $= 2,45,000 \times \frac{73}{365} = (2)\ 49,000$

(b) Working Capital

Particulars		₹
Current Assets = Stock		2,00,000
Debtors	2,50,000	
Cash	50,000	
Liquid Assets		3,00,000
Gross Working Capital		5,00,000
Less: Current Liabilities		2,00,000
Net Working Capital		3,00,000

Working Note

1. If current liabilities are 1 and current assets are 2.5, Working Capital is 1.5
   Working Capital is 3,00,000
   $\therefore$ Current Liabilities = 2,00,000 (1)
   Current Assets = 5,00,000 (2)
2. Liquid Ratio is 1.5
   $\therefore$ Liquid Assets are 3,00,000

3. Stock = Current Assets – Liquid Assets (4)
   5,00,000 – 3,00,000 = 2,00,000 (3)
4. Cost Sales = 2,00,000 × 6 = 12,00,000
5. Sales = Cost of Sales + G.P.
   12,00,000 + 3,00,000 = 15,00,000
6. Debtors = $\frac{15,00,000}{12} \times 2 = 2,50,000$ (5)
7. Cash = Quick Assets – Debtors
   = 3,00,000 – 2,50,000 = 50,000

Illustration 29: (a) From the following Profit and Loss A/c, calculate three profitability ratio.

Profit and Loss A/c

Particulars	000 ₹	000 ₹
Sales		40,00
Less: Cost of Goods Sold:		
Raw Material Consumed	10,00	
Wages	15,00	
Production Expenses	2,50	27,50
		12,50
Less: Indirect Expenses:		
Administrative Expenses		
Selling Expenses	2,00	
Distribution Expenses	1,00	
Finance Charge	50	
Tax Charge	4,00	
Tax Provision	2,00	9,50
		3,00
Less: Non-operational Adjustment		30
Net Profit		2,70

(b) From the figures given question no. (a) and the following balance sheet, calculate:
   (i) Return on Capital Employed (ii) EPS
   (iii) Yield (Dividend and Earning) (iv) Dividend Payout Ratio

Balance Sheet

Particulars	₹ '000
Liabilities:	
Equity Share Capital (Shares of ₹ 100 each)	8,00
10% Preference Share Capital	1,00
General Reserve	50
14% Debentures	1,00
16% Term Loan	1,00
Cash Credit	50
Sundry Creditors	20
Tax Provision (Net of Advance Tax)	150
Proposed Dividend:	
Preference	10
Equity	1,60
	15,40
Assets:	
Fixed Assets less Depreciation	
Investments	8,00

Inventories	3,00
Sundry Debtors	1,00
Cash and Bank	2,20
Profit and Loss A/c	20
	15,40

Note: Closing market price of equity shares was ₹ 150.

(T.Y. B.Com., Modified)

Solution:

(a) The three profitability ratios are:
(i) Gross Profit Ratio
(ii) Net Profit Ratio
(iii) Operating Profit Ratio

(i) Gross Profit Ratio = $\frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 = \frac{12{,}50{,}000}{40{,}00{,}000} \times 100 = 31.25\%$

(ii) Net Profit Ratio

$= \frac{\text{Net Profit before Tax}}{\text{Net Sales}} \times 100$

$= \frac{\text{Net Profit after Tax}}{\text{Net Sales}} \times 100$

Here Net Profit after Tax is 2,70,000 and Tax is ₹ 2,00,000

∴ Net Profit before Tax is 4,70,000

$= \frac{4{,}70{,}000}{40{,}00{,}000} \times 100 = 11.75\%$

$= \frac{2{,}70{,}000}{40{,}00{,}000} \times 100 = 6.75\%$

(iii) Operating Profit Ratio = $\frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$

Operating Profit = Gross Profit – Operating Expenses = 12,50,000 – 7,50,000 = 5,00,000

Operating Profit Ratio = $\frac{5{,}00{,}000}{40{,}00{,}000} \times 100 = 12.5\%$

(b)

(i) Return on Capital Employed = $\frac{\text{Net Profit before Interest Tax}}{\text{Capital Employed}} \times 100$

Net Profit after Tax	2,70,000
Add: Tax	2,00,000
Net Profit before Tax	4,70,000
Add: Interest and Financial Expenses	4,00,000
Net Profit before Interest and Tax	8,70,000
Capital Employed:	
Owners' Fund	
Equity Share Capital	8,00,000
Add: Preference Share Capital	1,00,000
Add: General Reserve	50,000
Less: Profit and Loss A/c	20,000
	9,30,000
Borrowed Fund:	

Debentures	2,00,000
Add: Term Loan + Cash Credit	50,000
	11,80,000

$$\text{Return on Capital Employed} = \frac{8,70,000}{11,80,000} \times 100 = 73.73\%$$

(ii) $$\text{Earnings Per Share} = \frac{\text{Net Profit after Tax} - \text{Preference Dividend}}{\text{No. of Equity Shares}}$$

$$= \frac{2,70,000 - 10,000}{8,000} = ₹\ 32.5 \text{ per share}$$

(iii) Yield (Dividend and Earning)

(a) $$\text{Dividend Yield Ratio} = \frac{\text{Dividend per Share}}{\text{Marketing Price per Share}} \times 100 = \frac{20}{150} = 13.33\%$$

(iv) $$\text{Dividend Payout Ratio} = \frac{\text{Equity Dividend} + \text{Preference Dividend}}{\text{Profit after Tax}} \times 100$$

$$= \frac{1,60,000 + 10,000}{2,70,000} \times 100 = 62.9\%$$

OR

$$= \frac{\text{Dividend per share}}{\text{Earning per share}} = \frac{20}{32.50} = 0.62 : 1$$

Illustration 30: The Balance Sheet of Ganga Ltd. as on 31st December, 2014 is as follows:

Liabilities		₹	Assets	₹
Equity Share Capital		80,000	Goodwill	30,000
Capital Reserve		16,000	Fixed Assets	1,20,000
8% Loan on Mortgage		44,000	Stock	24,000
Unsecured Loans		20,000	Debtors	28,000
Creditors		30,000	Investments (Trade)	8,000
Bank Overdraft		10,000	Cash on Hand	20,000
Taxation: Current		8,000	Miscellaneous Expenditure	10,000
Future		8,000		
Profit and Loss A/c				
Profit of 2014 after Taxation and Interest on Loan		48,000		
Less: Transfer to Reserve	16,000			
Dividend	8,000	24,000		
		2,40,000		2,40,000

The stock on 1.1.2014 was ₹ 40,000. Total Sales and Gross Profit for the year ended was₹ 4,80,00 and 1,60,000. Calculate the following ratios:

1. Gross Profit Ratio
2. Current Ratio
3. Liquidity Ratio
4. Return on Capital Employed
5. Stock Turnover Ratio
6. Debtors Ratio

(360 days to be considered for the year). **(T.Y. B.Com., Modified)**

Solution: In the Book of Ganga Ltd.

(i) $$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100 = \frac{1,60,000}{4,80,000} \times 100 = 33.33\%$$

(ii) $\text{Current Ratio} = \dfrac{\text{Current Assets}}{\text{Current Liabilities}} = \dfrac{72{,}000}{56{,}000} = 1.28:1$

(iii) $\text{Liquidity Ratio} = \dfrac{\text{Quick Assets}}{\text{Quick Liabilities}} = \dfrac{48{,}000}{46{,}000} = 1.04:1$

Quick Liabilities = Current Liabilities – Bank OD = 56,000 – 10,000 = 46,000

(iv) $\text{Return on Capital Employed} = \dfrac{\text{Net Profit before Interest and Tax}}{\text{Capital Employed}} \times 100$

Note:

Net Profit after Tax	48,000	
Add: Provision for Tax	8,000	
Add: Interest on Mortgage Loan (8% on 44,000)		3,520
Net Profit before Interest and Tax		59,520

$\therefore\ \text{Return on Capital Employed} = \dfrac{59{,}520}{1{,}74{,}000} \times 100 = 34.21\%$

Capital Employed = Total Assets – Current Liabilities

(v) $\text{Stock Turnover Ratio} = \dfrac{\text{Cost of Goods Sold}}{\text{Avarage Stock}}$

Note: Cost of Goods Sold = Net Sales – Gross Profit
= 4,80,000 – 1,60,000 = 3,20,000

$\text{Average Stock} = \dfrac{\text{Operating Stock} + \text{Closing Stock}}{2} = \dfrac{40{,}000 + 24{,}000}{2} = \dfrac{64{,}000}{2} = 32{,}000$

$\therefore\ \text{Stock Turnover Ratio} = \dfrac{3{,}20{,}000}{32{,}000} = 10 \text{ times}$

Debtors Turnover Ratio

(a) $\text{No. of Times} = \dfrac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$

$\text{No. of Days} = \dfrac{\text{Average Accounts Receivable}}{\text{Credit Sales}} \times 100$

Credit Sales = ₹ 3,60,000 (given)

$\text{Average Accounts Receivable} = \dfrac{\text{Operating [Debtors + B/R]} + \text{Closing Debtors [Debtors + B/R]}}{2}$

= 28,000 (since only closing debtors given)

Debtors Ratio

(a) $\text{No. of Times} = \dfrac{3{,}60{,}000}{28{,}000} = 12.86 \text{ times}$

(b) $\text{No. of Days} = \dfrac{28{,}000}{3{,}60{,}000} \times 360 = 28 \text{ days approx.}$

Illustration 31: From the following figures of RKR Ltd., prepare Vertical Revenue Statement and Vertical Balance Sheet and calculate the following ratios:

(a) Operating Ratio
(b) Debtors Turnover Ratio
(c) Stock Turnover Ratio
(d) Current Ratio
(e) Liquid Ratio

Particulars	2013 ₹	2014 ₹
Sales (Credit)	12,00,000	15,00,000
Fixed Assets (Net)	5,00,000	8,00,000
Debtors	2,00,000	2,95,000
Creditors	1,00,000	2,00,000
Bank Balance	50,000	20,000
Closing Stock	2,00,000	4,00,000
Bank Overdraft	1,00,000	2,50,000
Purchase	9,00,000	12,00,000
Depreciation	75,000	1,20,000
Expenses	1,00,000	1,50,000
Interest on Overdraft	15,000	40,000
Loan		2,00,000
Interest on Loan		35,000
Equity Share Capital	3,00,000	3,00,000
8% Preference Capital	1,00,000	1,00,000
Reserves and Surplus	1,90,000	2,08,500
Income Tax Provision	1,20,000	1,98,500
Proposed Divided	40,000	60,000

Further information:

(i) Stock 1.1.2013 ₹ 1,80,000

(ii) Income Tax Provision 1.1.2013 ₹ 55,000

(iii) Tax Provision for 2013 and 2014 should be made 50% of Net Profit.

Solution:

In the Book of RKT Ltd.

Vertical Revenue Statement

Particulars	2013		2014		
	₹	₹	₹	₹	₹
SOURCE OF FUNDS:					
Sales					
Less: Cost of Goods Sold					
Operating Stock	1,80,000			2,00,000	
(+) Purchases	9,00,000			12,00,000	
	10,80,000			14,00,000	
(–) Closing Stock	2,00,000	8,80,000		4,00,000	10,00,000
GROSS PROFIT		3,20,000			5,00,000
Less: Operating Expenses					
(A) Administration Expenses	1,00,000			1,50,000	
(B) Financial Expenses					
Interest on					
Overdraft 15,000			40,000		
Interest on Loans –	15,000		35,000	75,000	
(C) Depreciation	75,000	1,90,000		1,20,000	3,45,000
NPBT/NET Operating Profit		1,30,000			1,55,000
Less: Provision for tax		65,000			77,500
NET PROFIT AFTER TAX		65,000			77,500

Vertical Balance Sheet as on ....

Particulars	2013		2014		
SOURCE OF FUNDS					
(A) Shareholders' Fund					

Share Capital (Eq. Sh. Capital)	3,00,000			3,00,000		
Pref. Sh. Capital 8%	1,00,000	4,00,000		1,00,000	4,00,000	
Add: Reserves and Surplus		1,90,000	5,90,000		2,07,500	6,07,5000
(B) Loan Funds			–			2,00,000
TOTAL SOURCES			5,90,000			8,07,500
(A) Fixed Assets:						
Gross Block						
Less: Depreciation						
Net Block			5,00,000			8,00,000
Investment						
Working Capital						
Total Current Assets:						
Bank	50,000			20,000		
Debtors		2,00,000			2,95,000	
Closing Stock	2,00,000	4,50,000		4,00,000	7,15,000	
Less: Total Current Liabilities:						
Creditors	1,00,000			2,00,000		
Bank OD	1,00,000			2,50,000		
Income Tax Prov.	1,20,000			1,97,500		
Proposed Dividend	40,000	3,60,000	90,000	60,000	7,07,500	7,500
TOTAL APPLICATIONS			5,90,000			8,07,500

Working Note:

	2013	2014
1. **Operating Ratio** $= \frac{\text{Cost of Goods Sold} + \text{Operating Expenses}}{\text{Sales}} \times 100$	$= \frac{8,80,000 + 1,90,000}{12,00,000} \times 100$ $= 89.17\%$	$= \frac{10,00,000 + 3,45,000}{15,00,000} \times 100$ $= 89.67\%$
2. **Debtors Turnover Ratio** $= \frac{\text{Credit Sales}}{\text{Debtor + Bills Receivable}}$	$= \frac{12,00,000}{2,00,000} \times 100$ $= 6 \text{ times}$	$= \frac{15,00,000}{2,95,000} \times 100$ $= 5 \text{ times}$
In the Second Year, Average Debtors may be taken.		
3. **Stock Turnover Ratio** $= \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$		
$= \text{Average Stock} = \frac{\text{Op. Stock} + \text{Cl. Stock}}{2}$	$= \frac{1,80,000 + 2,00,000}{2}$ $= 1,90,000$	$= \frac{2,00,000 + 4,00,000}{2}$ $= 3,00,000$
	$= \frac{8,80,000}{1,90,000}$ $= 4.63 \text{ times} = 5 \text{ times}$	$= \frac{10,00,000}{3,00,000}$ $= 3.33 \text{ times} = 3 \text{ times}$

4. **Current Ratio** = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$	$= \frac{4,50,000}{3,60,000} = 1.25 : 1$	$= \frac{7,15,000}{7,07,500} = 1.01 : 1$
5. **Liquid Ratio** = $\frac{\text{Liquid Assets}}{\text{Liquid Liabilities}}$	$= \frac{2,50,000}{2,60,000} = 0.96 : 1$	$= \frac{3,15,000}{4,57,500} = 0.69 : 1$
Liquid Assets = Current Assets – (Closing Stock + Prepaid Expenses)	= 4,50,000 – 2,00,000 = 2,50,000	= 7,15,000 – 4,00,000 = 3,15,000
Liquid Liabilities = Current Liabilities – Bank Overdraft	= 3,60,000 – 1,00,000 = 2,60,000	= 7,06,500 – 2,50,000 = 4,56,500

Illustration 32: The following are the Balance Sheets of Krishna Limited for the two years 2013 and 2014.

Particulars			2013 ₹	2014 ₹
Sources of Funds:				
1. Proprietary Funds:				
(A) Equity Share Capital			4,00,000	5,00,000
(B) 10% Preference Share Capital			2,00,000	2,00,000
(C) Reserves			2,50,000	3,50,000
			8,50,000	10,50,000
2. Loan Funds:				
13.5% Debentures			2,50,000	2,50,000
Capital Employed			11,00,000	13,00,000
Application of Funds:				
1. Fixed Assets				
2. Investments				
3. Current Assets:	**2013 ₹**	**2014 ₹**		
(A) Stock	1,00,000	1,20,000		
(B) Debtors	1,50,000	2,00,000		
(C) Cash and Bank	50,000	80,000	3,00,000	4,00,000
Less: Current Liabilities:				
(A) Creditors	90,000	1,20,000		
(B) Bank Overdraft	70,000	80,000	1,60,000	2,00,000
Net Current Assets			1,40,000	2,00,000
		₹	11,00,000	13,00,000

Additional Information:

	2013 ₹	2014 ₹
1. Total Sales (Cash Sales are 20% of Total Sales)	40,00,000	30,00,0000
2. Gross Profit	8,00,000	11,00,000
3. Net Profit before Interest and Taxes (Rate of tax is 50%)	3,30,000	4,55,000
4. Opening Stock	90,000	1,00,000

From the above information, calculate the following ratios for both the years:

1. Current Ratio
2. Debtors Turnover Ratio
3. Return on Capital Employed
4. Return on Proprietors' Funds
5. Proprietary Ratio
6. Stock Turnover Ratio
7. Gross Profit Ratio
8. Net Profit (after Tax) Ratio

(T.Y. B.Com., Modified)

Solution:

	2013	2014
1. Current Ratio		
$= \frac{\text{Current Assets}}{\text{Current Liabilities}}$	$= \frac{3,00,000}{1,60,000} = 1.875 : 1$	$= \frac{4,00,000}{2,00,000} = 2 : 1$
2. Debtors Turnover Ratio		
$= \frac{\text{Credit Sales}}{\text{B/Rec.} + \text{Drs.}}$	$= \frac{24,00,000}{1,50,000} = 16 \text{ times}$	$= \frac{32,00,000}{2,00,000} = 16 \text{ times}$
3. Return on capital Employed		
$= \frac{\text{Net Profit before Tax \& Int.}}{\text{Capital Employed}} \times 100$	$= \frac{3,30,000}{11,00,000} \times 100 = 30\%$	$= \frac{4,55,000}{33,00,000} \times 100 = 35\%$
4. Return on Proprietor's Fund		
$= \frac{\text{Net Profit after Tax}}{\text{Shareholders' Fund}} \times 100$	$= \frac{1,48,125}{8,50,000} \times 100 = 17.43\%$	$= \frac{2,10,625}{10,50,000} \times 100 = 20.06\%$
5. Proprietory Ratio		
$= \frac{\text{Shareholders' Fund}}{\text{Total Assets}} \times 100$	$= \frac{8,50,125}{12,60,000} \times 100 = 67.46\%$	$= \frac{10,50,000}{15,00,000} \times 100 = 70\%$
6. Stock Turnover Ratio		
$= \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$	$= \frac{22,00,000}{95,000} = 23.16 \text{ times}$	$= \frac{29,00,000}{1,10,000} = 26.3 \text{ times}$
$\text{Average Stock} = \frac{\text{Op. Stock} + \text{Cl. Stock}}{2}$	$= \frac{90,000 + 1,00,000}{2} = 95,000$	$= \frac{1,00,000 + 1,20,000}{2} = 1,00,000$
7. Gross Profit Ratio		
$= \frac{\text{Gross Profit}}{\text{Sales}} \times 100$	$= \frac{8,00,000}{30,00,000} \times 100 = 26.67\%$	$= \frac{11,00,000}{40,00,000} \times 100 = 27.5\%$
8. Net Profit After Tax Ratio		
$= \frac{\text{Net Profit after Tax}}{\text{Sales}} \times 100$	$= \frac{1,48,125}{30,00,000} \times 100 = 4.94\%$	$= \frac{2,10,625}{40,00,000} \times 100 = 5.27\%$

Illustration 33: You have been supplied financial information for the Kaveri Ltd. and its industry average ratios. Calculate the indicated accounting ratios and make brief comment on each.

Balance Sheet as on 31st March, 2014

Liabilities	₹	Assets	₹
Equity Share Capital, ₹ 10 each	20,00,000	Land and Building	19,00,000
12% Preference Share Capital	6,00,000	Machinery	6,00,000
Retained Earnings	3,00,000	Furniture	50,000
15% Debentures	5,00,000	Stock	7,50,000
Public Fixed Deposits	1,00,000	Debtors	6,00,000
Creditors	5,00,000	Cash and Bank	1,50,000
Bills Payable	80,000	Other Current Assets	1,00,000
Unpaid Expenses	20,000	Preliminary Expenses	50,000
Bank Overdraft	1,00,000		
	42,00,000		42,00,000

Statement of Profit for the year ended on 31st March, 2014

	₹	₹
Total Sales (out of which 90% are Credit Sales)		48,00,000
Less: Cost of Goods Sold	28,80,000	
Operating Expenses	7,80,000	36,60,000
Net Profit		11,40,000
Less: Taxes @ 50%		5,70,000
		5,70,000

Stock in the beginning of the year was ₹ 5,50,000.

		Industry's Average
1.	Current ratio	2.4
2.	Stock turnover	4
3.	Debtor's ratio (360 days to the taken for the year)	60 days
4.	Debt-equity ratio	0.4 : 1
5.	Net profit ratio	72%
6.	Rate of return of proprietors' fund.	10.5%
7.	Rate of return of proprietors' fund.	**(T.Y. B.Com., Modified)**

Solution:

In the Book of Kaveri Ltd.
Vertical Balance as on 31st March, 2014

Particulars	Amount	Amount	Amount
SOURCES OF FUNDS			
(A) Shareholders' Fund			
Share Capital			
Equity Share Capital	20,00,000		
12% Preference Share Capital	6,00,000	26,00,000	
Add: Reserves and Surplus		3,00,000	
Retained Earnings		29,00,000	
Less: Miscellaneous Expenses			
Preliminary Expenses		50,000	28,50,000
(B) Loan Funds			
Secured Loans – 15% Debentures		5,00,000	
Unsecured Loans – Public Fixed Deposits		1,00,000	6,00,000
TOTAL SOURCES			34,50,000
APPLICATION OF FUNDS			
(A) Fixed Assets			
Gross Block		25,50,000	
Less: Depreciation		–	
Net Block			25,50,000
(B) Investment			Nil
(C) Working Capital			
Total Current Assets			
Stock	7,50,000		
Debtors	6,00,000		
Cash and Bank	1,50,000		
Other Current Assets	1,00,000	16,00,000	
Less: Total Current Liabilities			
Creditors	5,00,000		
Bills Payable	80,000		

Unpaid Expenses	20,000		
Book Overdraft	1,00,000	7,00,000	9,00,000
TOTAL APPLICATIONS			34,50,000

Working Note:

Gross Block	
Land and Building	19,00,000
Machinery	6,00,000
Furniture	50,000
	25,50,000

1. $$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} = \frac{16,00,000}{7,00,000} = 8.28 : 1$$

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

$$\text{Average Stock} = \frac{\text{Opening Stock} + \text{Closing Stock}}{2} = \frac{5,50,000 + 7,50,000}{2} = \frac{13,00,000}{2} = 6,50,000$$

$$\text{Stock Turnover Ratio} = \frac{28,80,000}{6,50,000} = 4.43 \text{ times}$$

3. $$\text{Debtors' Ratio} = \frac{\text{Debtors} + \text{Bills Rec.}}{\text{Credit Sales}} \times 360 = \frac{6,00,000}{43,20,000} \times 360 = 49.99 = 50 \text{ days}$$

4. $$\text{Debt - equity Ratio} = \frac{\text{Loan Funds}}{\text{Shareholders' Fund}} = \frac{6,00,000}{28,50,000} = 0.21:1$$

5. $$\text{Proprietory Ratio} = \frac{\text{Shaeholders' Funds}}{\text{Total Assets}} \times 100 = \frac{28,50,000}{41,50,000} \times 100 = 68.67\%$$

6. $$\text{Net Profit Ratio} = \frac{\text{Net Profit after Tax}}{\text{Sales}} \times 100 = \frac{5,70,000}{48,00,000} \times 100 = 11.87\%$$

7. $$\text{Rate of Return of Proprietor's Funds} = \frac{\text{Net Profit after Tax}}{\text{Shareholders' Fund}} \times 100 = \frac{5,70,000}{28,50,000} \times 100 = 20\%$$

Particulars	**Industry Ratio**	**K Ltd.**
1. Current Ratio	2.4 : 1	2.28 : 1
2. Stock Turnover	4 times	4.43 times
3. Average Collection Period	60 days	50 days
4. Debit-equity Ratio	40%	21%
5. Proprietory Ratio	72%	68.67%
6. Net Profit Ratio (NPAT)	10.5%	11.87%
7. Rate of Return of Proprietor's Fund	–	20%

Standard Ratio for the industry on given in the problems and actual ratios of K Ltd. we have calculated. It is necessary to compare term with each other.

1. **Current Ratio**
   Standard Ratio available for this 2.4 : 1, whereas actual Ratios of K Ltd. is 2.28 : 1 which is short by 0.12. It is necessary for the company to improve is financial position in respect of current liabilities.
2. **Stock Turnover Ratio**
   Appropriately Actual Ratio is equal to the standard Ratio. It is more by 0.43 which includes better position of the company.

3. **Average Collection Period**
   Recovery from the debtors is to be made within a period of 60% days but K Ltd. is able to recover amount from debtors within 50 days which indicated efficiency of its credit department.
4. **Debit-equity Ratio**
   It indicate proportion in between own funds and loan funds for every ₹ 100/- as ₹ 40. But K Ltd. having loan funds only of ₹ 21. It means company can utilise more outside funds and can expand the business.

Illustration 34: The summarised final final accounts of two companies are as follows:

Liabilities	X Ltd.	Y Ltd.	Assets	X Ltd.	Y Ltd.
Share Capital	88,000	88,000	Fixed Assets	1,21,000	96,800
Reserves	42,900	35,200	Current Assets	1,25,400	1,03,400
8% Debentures	22,000	22,000	*Less:* Current Liabilities	93,500	31,900
	1,52,900	1,45,200		1,52,900	1,45,200

Revenue Statement for the year ......

Income	X Ltd. ₹	Y Ltd. ₹
Sales	3,30,000	2,64,000
Less: Cost of Sales	2,37,600	1,98,000
Gross Profit	92,400	66,000
Operating Expenses	63,800	44,000
Net Profit before Tax	28,600	22,000
Tax	12,100	9,240
Profit after Tax	16,500	12,760
Dividend	8,800	6,600
Retained Earning	7,700	6,160

You are required to calculate the following ratios and comment

1. Proprietory Ratio
2. Capital Gearing Ratio
3. Gross Profit Ratio
4. Operating Ratio
5. Return on Total Resources Ratio
6. Return on Proprietors' Equity Ratio
7. Expenses Ratio
8. Net Profit Ratio.

(T.Y. B.Com., Modified)

Solution:

(i) Proprietory Ratio $= \dfrac{\text{Shareholders' Funds}}{\text{Total Assets}} \times 100$

$$= \frac{\text{Equity Share Capital} + \text{Preference Capital} + \text{R \& S} - \text{ME}}{\text{FA} + \text{CA}} \times 100$$

$$\text{For 'X' Ltd.} = \frac{88{,}000 + 42{,}900 - \text{Nil}}{1{,}21{,}000 + 1{,}25{,}400} \times 100 = \frac{1{,}30{,}900}{2{,}46{,}400} \times 100 = 53.13\%$$

$$\text{For 'Y' Ltd.} = \frac{88{,}000 + 35{,}200 - \text{Nil}}{96{,}800 + 1{,}03{,}400} \times 100 = \frac{1{,}23{,}200}{2{,}00{,}200} \times 100 = 61.54\%$$

(ii) Capital Gearing Ratio $= \dfrac{\text{Long-term Borrowing} + \text{Preference Capital}}{\text{Shareholders' Fund}}$

$$\text{For 'X' Ltd.} = \frac{22{,}000}{1{,}30{,}900} = 0.17 : 1$$

$$\text{For 'Y' Ltd.} = \frac{22{,}000}{1{,}23{,}200} = 0.18 : 1$$

(iii) Gross Profit Ratio $= \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$

$$\text{For 'X' Ltd.} = \frac{92{,}400}{3{,}30{,}900} \times 100 = 28\%$$

$$\text{For 'Y' Ltd.} = \frac{66{,}000}{2{,}64{,}000} \times 100 = 25\%$$

(iv) Operating Ratio $= \frac{\text{COGS} + \text{Other Operating Expenses}}{\text{Sales}} \times 100$

$$\text{For 'X' Ltd.} = \frac{2{,}37{,}600 + 63{,}800}{3{,}30{,}000} \times 100 = \frac{3{,}01{,}400}{3{,}30{,}000} \times 100 = 91.33\%$$

$$\text{For 'Y' Ltd.} = \frac{1{,}98{,}000 + 44{,}000}{2{,}64{,}000} \times 100 = \frac{2{,}42{,}000}{2{,}64{,}000} \times 100 = 91.67\%$$

(v) Return on Total Resources Ratio $= \frac{\text{Net Profit before Tax and Interest}}{\text{Total Assets}} \times 100$

$$\text{For 'X' Ltd.} = \frac{28{,}600 + 1{,}760}{2{,}46{,}400} \times 100 = \frac{30{,}360}{2{,}46{,}400} \times 100 = 12.32\%$$

$$\text{For 'Y' Ltd.} = \frac{22{,}000 + 1{,}760}{2{,}00{,}200} \times 100 = \frac{23{,}760}{2{,}00{,}200} \times 100 = 11.87\%$$

(vi) Return on Prop. Equity Ratio $= \frac{\text{Net Profit after Tax} - \text{Pref. Share Dividend}}{\text{Equity Share Capital} + \text{Reserves and Surplus}} \times 100$

$$\text{For 'X' Ltd.} = \frac{16{,}500 - \text{Nil}}{1{,}23{,}200} \times 100 = 12.61\%$$

$$\text{For 'Y' Ltd.} = \frac{12{,}760 - \text{Nil}}{1{,}23{,}200} \times 100 = 10.36\%$$

(vii) Expenses Ratio $= \frac{\text{Operating Expenses}}{\text{Sales}} \times 100$

$$\text{For 'X' Ltd.} = \frac{63{,}800}{3{,}30{,}000} \times 100 = 19.33\%$$

$$\text{For 'Y' Ltd.} = \frac{44{,}000}{2{,}64{,}000} \times 100 = 16.67\%$$

(viii) (a) Net Profit Ratio $= \frac{\text{Net Profit before Tax}}{\text{Sales}} \times 100$

$$\text{For 'X' Ltd.} = \frac{28{,}600}{3{,}30{,}000} \times 100 = 8.67\%$$

$$\text{For 'Y' Ltd.} = \frac{22{,}000}{2{,}64{,}000} \times 100 = 8.33\%$$

(b) $\frac{\text{Net Profit after Tax}}{\text{Sales}} \times 100$

$$\text{For 'X' Ltd.} = \frac{16{,}500}{3{,}30{,}000} \times 100 = 5\%$$

$$\text{For 'Y' Ltd.} = \frac{13{,}760}{2{,}64{,}000} \times 100 = 4.83\%$$

Illustration 35: Current Liabilities and Current Assets of D.K. Ltd. were as under:

Current Liabilities	₹	Current Assets	₹
Creditors	1,00,000	Stock (at Cost)	75,000
Bank Overdraft	25,000	Debtors	1,25,000
Total Current Liabilities	1,25,000	Total Current Assets	2,00,000

Notes:

The company can avail the overdraft facility upto ₹ 75,000.

Explain in detail the effects of the following transactions on Current Ratio and Working Capital of the company.

Consider each transaction separately. (Do not give cumulative effects of the transactions).

1. Purchased Goods worth ₹ 25,000 and issued a cheque of ₹ 25,000 against the said purchases.
2. Received a cheque of ₹ 30,000 from one of the customers and deposited the same into bank in overdraft A/c.
3. Sold Goods costing ₹ 25,000 for ₹ 35,000 on credit.
4. Bills Receivable of ₹ 15,000 which was discounted in the Bank is now dishonoured.

Solution:

A. Current Ratio $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}} = \dfrac{2,00,000}{1,25,000} = 1.6 : 1$

Working Capital = Current Assets – Current Liabilities

= 2,00,000 – 1,25,000 = ₹ 75,000

1. Purchase of goods of ₹ 25,000

(a) Effect on Current Ratio

Purchase of goods increases Stock by ₹ 25,000

Current Assets = 2,00,000 + 25,000 = ₹ 25,000

Issue of cheque increases the Bank Overdraft by ₹ 25,000

Current Liabilities = 1,25,000 + 25,000 = ₹ 1,50,000

Revised Current Ratio $= \dfrac{2,25,000}{1,50,000} = 1.5 : 1$

Thus, the transaction will decrease the Current Ratio.

(b) Effect on Working Capital

This transaction will increase the Current Assets and Current Liabilities by the same amount of ₹ 25,000. Hence, Working Capital will not change.

2. Receipt of ₹ 25,000 from the customer and deposited in the bank.

(a) Effect on Current Ratio

Receipt of ₹ 25,000 reduces Debtors by ₹ 25,000

Current Assets = 2,00,000 – 25,000 = ₹ 1,75,000

Depositing the cheque in the Bank reduces the Bank Overdraft by ₹ 25,000

Current Liabilities = 1,25,000 – 25,000 = ₹ 1,00,000

Revised Current Ratio $= \dfrac{1,75,000}{1,00,000} = 1.75 : 1$

Thus, the transaction will increase the Current Ratio.

(b) Effect on Working Capital

This transaction will decrease the Current Assets and Current Liabilities by the same amount of ₹ 25,000. So, Working Capital will not change.

3. Sale of goods costing ₹ 25,000 for ₹ 35,000 on credit.

(a) Effect on Current Ratio

Sale of goods costing ₹ 25,000 reduces Stock by ₹ 25,000

Stock = 75,000 – 25,000 = ₹ 50,000

It increase the debtors by ₹ 35,000 as Sale is for ₹ 35,000

Debtors = 1,25,000 + 35,000 = ₹ 1,60,000

Revised Current Assets = 50,000 + 1,60,000 = ₹ 2,10,000

(Increase in Current Assets of ₹ 10,000)

Current Liabilities remain same at ₹ 1,25,000

Revised Current Ratio = $\frac{2,10,000}{1,25,000}$ = 1.88 : 1

Thus, the transaction will increase the Current Ratio.

(b) Effect on Working Capital

This transaction will increase the Current Assets only by ₹ 10,000. So, Working Capital will increase from ₹ 75,000 to ₹ 85,000.

4. Discounted bills receivable of ₹ 15,000 dishonoured.

(a) Effect on Current Ratio

Dishonour of discounted bill receivable increases Debtors by ₹ 15,000.

Current Assets = 2,00,000 + 15,000 = ₹ 2,15,000

It also increases the Bank Overdraft by ₹ 15,000

Current Liabilities = 1,25,000 + 15,000 = ₹ 1,40,000

Revised Current Ratio = $\frac{2,15,000}{1,40,000}$ = 1.54 : 1

Thus, the transaction will decrease the Current Ratio.

(b) Effect on Working Capital

This transaction will increase the Current Assets and Current Liabilities by the same amount of ₹ 15,000. So, Working Capital will remain unchanged.

Exercise

Answer in One Sentence

1. What is ratio?
2. What is the objective of ratio analysis?
3. what is a current ratio?
4. What is quick ratio?
5. What is proprietary ratio?
6. What is stock to working capital ratio?
7. What is capital gearing ?
8. What is debt-equity ratio?
9. What is a gross profit ratio?
10. What is operating ratio?
11. What is net profit ratio?
12. What is stock turnover ratio?
13. What is return on capital?
14. What is a earning per share?
15. What is a price earning ratio?
16. What is debt service ratio?
17. What is collection period?
18. What is a creditors turnover?
19. What is the purpose of quick ratio?
20. What is the purpose of current ratio?
21. What is the purpose of gross profit?
22. What is the importance of stock turnover ratio?
23. What is the purpose of stock to working capital ratio?
24. Debtors Turnover Ratio
25. Creditors Turnover Ratio
26. Limitations of Ratio Analysis

Fill in the Blanks

1. ________ is a proportion between two figures.
2. One figure is divided by another figure to get _______ ratio.
3. Turnover ratios are expressed in ________.
4. Balance sheet ratio is a ratio between two figures from ________.
5. Combined ratio is a ratio between one figure from ________ and another figure from _________.
6. Current Ratio = _________.
7. Current Ratio shows ________ financial position.
8. Liquid ratio is a relationship between Liquid assets and ________.
9. ________ are near cash assets.
10. Working capital is an excess of current assets over ________.
11. Debt-equity ratio shows proportion between ________ and ________.
12. Proprietary Ratio = ________.
13. Cost of goods sold is divided by average stock to get ________.
14. ________ shows trading efficiency.
15. ________ shows operating efficiency.
16. ________ capital employed shows overall profitability of the organisation.
17. Dividend payment is calculated by dividing dividend of share by ________.
18. Stock ________ shows the speed of movement of stock.
19. ________ ratio shows ability of a firm to service.
20. ________ shows the period for which amount of sales remains invested in debtors.
21. NP ratio is a relationship between NP and ________.
22. Standard Current Ratio is ________.
23. Standard Liquid Ratio is ________.
24. Capital Gearing Ratio is also called as ________.
25. Operating Cost = ________ .
26. Operating ratio is a relationship between operating profit and ________.
27. Quick ratio is also known as ________ ratio.
28. Net Profit Ratio is an indicator of ________.
29. Quick Ratio indicates ________.
30. Current Ratio indicates ________.
31. Standard stock turnover rate is ________ times.
32. Stock turnover indicates ________.
33. Proprietary Ratio indicates ________.
34. ________ Period indicates time taken to collect dues from customers.
35. Marketable securities is ________ Assets.
36. Return on capital employed = _________ × 16.
37. Stock to working capital ratio indicates relationship between stock and ________ capital.
38. Standard debt-equity ratio is ________.
39. Average stock = _________.
40. Prepaid expenses are not ________ assets.

Ans.: 1. Ratio; 2. Pure; 3. No. of times; 4. Balance Sheet; 5. Balance Sheet, Profit and Loss A/c; 6. Current Assets; 7. Short-term; 8. Current Liabilities; 9. Liquid Assets; 10. Current Liabilities; 11. Long-term debt-equity; 12. Proprietors' Fund; 13. Stock Turnover; 14. Gross Profit; 15. Operating Ratio; 16. EPS; 17. Turnover; 18. Turnover; 19. Debt Service; 20. Collection Period; 21. Net Sales; 22. 1 : 1; 23. 1 : 1; 24. Capital Structure Ratio; 25. Cost of Goods Sold + Operating Expenses; 26. Sales; 27. Liquid; 28. Profitability; 29. Liquidity; 30. Short-term solvency; 31. 6; 32. Stock Velocity; 33. Financial Stability; 34. Collection; 35. Liquid; 36. NPBIT; 37. Working; 38. 2 : 1; 39. closing stock; 40. Liquid.

State Whether the Following Statements are True or False

1. Current ratio and acid test ratio are the same.
2. Acid test ratio test the acid.
3. Short-term solvency ratio measures the ability of the firm to pay current liabilities.
4. Equity fund includes debentures.
5. In general, low turnover ratio is desirable.
6. It is conceptually correct to decide stock turnover ratio by dividing cost of goods sold by average stock.
7. Excess of sales over cost of goods sold is gross profit.
8. Proprietary ratio examines short-term solvency position.
9. Capital gearing ratio shows the speed of capital.
10. Debt-equity is a proportion between short-term debt and equity.
11. Operating ratio must be higher for measurement of profitability.
12. Net profit ratio is a measure of profitability.
13. Capital employed is equal to fixed assets.
14. Preference share capital is a loan capital.
15. Dividend payout ratio shows dividend paying ability of the firm.
16. Debt service ratio shows the servicing of debt.
17. Debt collection period sows the period taken by debtors to pay.
18. Stock to working capital ratio is a relationship between stock and working capital.
19. Activity of the management is judged by debtors turnover ratio.
20. Expense ratio is a relationship between expenses and sales.
21. Higher GP ratio shows higher trading efficiency of an organisation.
22. Liquid ratio indicates liquidity position.
23. Public Deposit is unsecured loans.
24. Interest coverage ratio indicates firm's ability to meet interest.
25. Debt collection period indicates time taken by debtors to settle the account.
26. Net worth means capital employed.
27. All current liabilities are quick liabilities.
28. Stock is a liquid asset.
29. Prepaid expenses are included in liquid assets.
30. Contingent liabilities appear in the Balance Sheet.
31. Overvaluation of closing stock increases gross profit.
32. Overvaluation of opening stock increases gross profit.
33. Undervaluation of closing stock increases gross profit.
34. Current ratio is also known as working capital ratio.
35. Stock turnover ratio indicates the speed of collection of debt.
36. Bank overdraft is a liquid liability.
37. Net Assets means working capital.

38. Preference share capital is a part of own fund.
39. Working capital is lifeblood of an organisation,
40. Return on Investment shows overall profitability of the organisation.
41. EPS shows managerial efficiency in use of resource.
42. Proprietary ratio indicates short-term financial position.
43. Higher capital gearing shows lower commitment on account of interest.
44. Higher stock turnover means higher cost of goods sold.
45. Higher stock to working capital ratio indicates higher incidence of inventory in working capital.

Ans.: True: 3, 6, 7, 12, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 31, 34, 38, 39, 40, 41, 45
False: 1, 2, 4, 5, 8, 9, 10, 11, 13, 14, 26, 27, 28, 29, 30, 32, 33, 35, 36, 37, 42, 43, 44

Match the Columns

(A)

Group A	Group B
1. Ratio	(a) Short-term position
2. Current ratio	(b) Liquidity position
3. Liquid ratio	(c) Investment of stock in working capital
4. Stock to working capital ratio	(d) Long-term financial position
5. Proprietary ratio	(e) Dependence on debt and equity
6. Debt-equity ratio	(f) Gearing of capital structure
7. Capital gearing ratio	(g) Trading efficiency
8. Gross profit ratio	(h) % of expenses to sales
9. Expenses ratio	(i) Operating efficiency
10. Operating ratio	(j) Profitability position
11. Net profit ratio	(k) Operating profitability
12. Net operating profit ratio	(l) Financial stability
	(m) Proportion between two figures
	(n) Overall profitability

Ans.: 1. (m), 2. (a), 3. (b), 4. (c), 5. (d), 6. (e), 7. (f), 8. (g), 9. (h), 10. (i), 11. (j), 12. (k)

(B)

Group A	Group B
1. Return on capital employed	(a) Utilisation of proprietors' fund
2. Return on proprietor's fund	(b) Utilisation of equity capital
3. Return on equity capital	(c) Dividend paying ability
4. Dividend payout	(d) Overall profitability
5. Debt service ratio	(e) Debt service ability
6. Debtors turnover	(f) Efficiency in collection from debtors
	(g) Promptness in payment

Ans.: 1. (d), 2. (a), 3. (b), 4. (c), 5. (e), 6. (f).

(C)

Group A	Group B
1. Liquid ratio	(a) Liquid assets ÷ Current liabilities
2. Debt equity ratio	(b) Operating cost ÷ Sales
3. Operating ratio	(c) Stock ÷ Working capital
4. Stock to working capital ratio	(d) Long-term Debt ÷ Equity
5. Net profit ratio	(e) Dividend per share ÷ EPS
6. Dividend payout	(f) NP ÷ Capital employed
7. Return on equity capital	(g) NP ÷ Proprietors' fund
8. Return on capital employed	(h) NP ÷ Equity capital
9. Return on proprietor's fund	(i) NP ÷ Sales

Ans.: 1. (a), 2. (d), 3. (b), 4. (c), 5. (i), 6. (e), 7. (h), 8. (f), 9. (g)

Multiple Choice Questions

1. A very high current ratio will
   (a) Increase profitability (b) Decrease profitability
   (c) Not affect profitability (d) None of the above
2. A very high current ratio may be due to
   (a) Overvaluation of inventory (b) Inefficiency in collection of debt
   (c) Cash and bank balance without (d) All the above investment
3. Current ratio shows
   (a) Short-term financial position (b) Inefficiency in collection of debt
   (c) Collection efficiency (d) Higher profitability
4. One of the following is not an absolute liquid asset.
   (a) Cash balance (b) Bank balance
   (c) Bills receivable (d) Marketable securities
5. Liquid ratio which is equal to the following is favourable.
   (a) 2 : 1 (b) 1 : 1
   (c) 1 : 3 (d) 2 : 5
6. Proprietary ratio shows
   (a) Long-term financial position (b) Short-term financial position
   (c) Liquidity position (d) All of the above
7. Higher proprietary ratio shows that
   (a) Small portion of assets is financed by the proprietors
   (b) Larger portion of assets is financed by the proprietors
   (c) Longer portion of assets is finance by loans
   (d) None of the above
8. Higher gearing means
   (a) Capital structure is high geared (b) Capital structure is low geared
   (c) Capital structure is optimum (d) None of the above
9. High geared company exposes to
   (a) Business risk (b) Financial risk
   (c) Inflation risk (d) Interest risk
10. Shareholders' equity includes
    (a) Equity share capital (b) Preference share capital
    (c) Reserves and surplus (d) All of the above
11. Fixed interest bearing funds do not include one of the following.
    (a) Debenture (b) Long-term investment
    (c) Preference capital (d) Public deposit
12. Loan fund does not include one of the following.
    (a) Debentures (b) Loans
    (c) Provision for taxation (d) Public deposits
13. The ratio that indicates ability of the company to pay urgent obligations immediately is
    (a) Current ratio (b) Debt-equity ratio
    (c) Liquidity ratio (d) Proprietary ratio

14. A low inventory turnover ratio indicates
    (a) Investment tied up in stock
    (b) Absolute goods on hand
    (c) Adverse liquidity
    (d) All of the above
15. Higher turnover ratio as compared to indicates that
    (a) The stock is moving fast in the market
    (b) Buying and selling policies are effective
    (c) Inventory management is efficient
    (d) All of the above
16. A longer payment period indicates that
    (a) Suppliers are prepared to allow longer period of credit
    (b) Operations are being financed by suppliers
    (c) Damages credit standing of the company
    (d) Spoils relationship with suppliers
17. Longer collection period indicates that
    (a) Debtors are not prompt in payment
    (b) Creditors are allowing longer period of credit
    (c) Short-term financial position is good
    (d) Long-term position is good
18. Higher GP Ratio may be due to
    (a) Higher rate of profitability
    (b) Strict control over cost of goods sold
    (c) Sales and working capital
    (d) All of the above
19. Stock to working capital ratio is a proportion between
    (a) Closing stock and working capital
    (b) Opening stock and wrong capital
    (c) Sales and working capital
    (d) Sales and current assets
20. One of the reasons responsible for decrease in gross profit ratio is
    (a) Undervaluation of closing inventory
    (b) Overvaluation of closing inventory
    (c) Excess depreciation on fixed assets
    (d) Additional interest on loan
21. Return on capital employed is a relationship between
    (a) Net operating profit and loan
    (b) Net operating profit and capital employed
    (c) Gross profit and sales
    (d) Gross profit and total assets
22. Return on capital employed is also known as
    (a) Return on total assets
    (b) Return on fixed assets
    (c) Return on investment
    (d) Return on shareholders' fund
23. Debt-equity ratio is a relationship between
    (a) Short-term debt and equity
    (b) Long-term debt and equity
    (c) Current liabilities and share capital
    (d) Preference capital and equity capital
24. Debt service ratio shows
    (a) Short-term financial position of the company
    (b) Financial stability
    (c) Debt servicing ability
    (d) Liquidity position
25. Dividend payout ratio is a proportion between
    (a) Dividend per share and earning per share
    (b) Preference dividend and equity capital
    (c) Equity dividend and equity capital
    (d) Total dividend and capital employed

26. Operating ratio is a proportion between
    (a) Operating cost and purchases (b) Operating cost and sales
    (c) Total cost and sales (d) Net profit and sales
27. Shareholders' equity does not include
    (a) Equity capital (b) Reserves and surplus
    (c) Debentures (d) Preliminary expenses
28. Net profit ratio indicates
    (a) Overall profitability (b) Profitability
    (c) Trading efficiency (d) Liquidity
29. Proprietary ratio is a proportion between
    (a) Proprietary and equity capital (b) Proprietary fund and sales
    (c) Proprietors' fund and total assets (d) Proprietors' fund and sales
30. Return on proprietors' fund indicates
    (a) Utilisation of capital employed (b) Utilisation of assets
    (c) Utilisation of proprietors fund (d) Utilisation of total resources
31. Operating performance is best measured by
    (a) Operating profit ratio (b) Return on capital
    (c) Return on fixed assets (d) Return on equity
32. Current ratio is 2.5 working capital is ₹ 60,000. Current assets will be.
    (a) ₹ 1,00,000 (b) ₹ 1,40,000
    (c) ₹ 50,000 (d) ₹ 1,25,000
33. Refer to Q. No. 32 current liabilities will be
    (a) ₹ 60,000 (b) ₹ 40,000
    (c) ₹ 75,000 (d) ₹ 40,000
34. G.P. ₹ 1,00,000, Total sales ₹ 5,25,000 sales return ₹ 25,000. GP ratio will be
    (a) 25% (b) 21%
    (c) 20% (d) 28%
35. Proprietary ratio is a
    (a) Balance sheet ratio (b) Revenue statement ratio
    (c) Combined ratio (d) None of the above
36. Debt-equity ratio is a
    (a) Revenue statement Ratio (b) Balance sheet ratio
    (c) Combined ratio (d) None of the above
37. Stock to working capital ratio is a
    (a) Revenue statement ratio (b) Balance sheet ratio
    (c) Combined ratio (d) None of the above
38. Administrative expense ratio is a
    (a) Revenue statement ratio (b) Balance sheet ratio
    (c) Combined ratio (d) None of the above
39. Net operating profit ratio is a
    (a) Balance sheet ratio (b) Revenue statement ratio
    (c) Combined ratio (d) None of the above

40. Operating ratio is a
    (a) Balance sheet ratio (b) Revenue statement ratio
    (c) Combined ratio (d) None of the above
41. ROI is a
    (a) Balance sheet ratio (b) Revenue statement ratio
    (c) Combined ratio (d) None of the above
42. Creditors turnover ratio is a
    (a) Balance sheet ratio (b) Revenue statement ratio
    (c) Combined ratio (d) None of the above
43. Debtors turnover ratio is a
    (a) Balance sheet ratio (b) Revenue statement ratio
    (c) Combined ratio (d) None of the above
44. Liquidity ratios include
    (a) Current ratio and Liquidity ratio (b) P/E, EPS, Dividend payout ratio
    (c) ROI, Net profit ratio, Operating ratio (d) None of the above
45. Profitability ratios include
    (a) Debt-equity ratio (b) Current ratio
    (c) Liquid ratio (d) None of the above
46. 2 : 1 is a standard
    (a) Debt-equity ratio (b) Current ratio
    (c) Liquid ratio (d) None of the above
47. 1 : 1 is a standard
    (a) Debt-equity ratio (b) Current ratio
    (c) Liquid ratio (d) None of the above

Ans.: 1. (b), 2. (d), 3. (a), 4. (c), 5. (b), 6. (a), 7. (b), 8. (a), 9. (b), 10. (d), 11. (b), 12. (c), 13. (c), 14. (d), 15. (d), 16. (a), 17. (a), 18. (d), 19. (a), 20. (a), 21. (b), 22. (c), 23. (b), 24. (c), 25. (a), 26. (b), 27. (c), 28. (b), 29. (c), 30. (c), 31. (a), 32. (a), 33. (b), 34. (c), 35. (a), 36. (b), 37. (b), 38. (a), 39. (b), 40. (b), 41. (c), 42. (c), 43. (c), 44. (a), 45. (b), 46. (b), 47. (c).

PRACTICAL QUESTIONS

1. Calculate from the following details furnished by Swaraj Ltd.: (a) Current Ratio, (b) Liquid Ratio, (c) Creditors Turnover Ratio and Average Credit Period, (d) Debtors Turnover Ratio and Average Credit Period and (e) Stock Turnover Ratio.

Particulars	₹
Stock	8,00,000
Debtors	1,70,000
Cash	30,000
Creditors	3,00,000
Bank Overdraft	40,000
Outstanding Expenses	60,000
Total Purchases	9,30,000
Cash Purchases	30,000
Gross Profit Rates	25%

Offer your comments on short-term credit position of the company. Comments on individual ratio are not desirable. **(T.Y. B.Com., Modified)**

2. Calculate from the following details furnished by Pardeshi Ltd.: (a) Current Ratio, (b) Liquid Ratio, (c) Credit Turnover Ratio and Average Credit Period, (d) Debtors Turnover Ratio and Average Credit Period and (e) Turnover Ratio.

Particulars	**₹**
Stock	1,00,000
Debtors	1,40,000
Cash	60,000
Creditors	1,60.000
Bank Overdraft	30,000
Outstanding Expenses	10.000
Total Purchases	6.60,000
Cash Purchases	20,000
Gross Profit Ratio	33 1/3%

Offer your comments on short-term credit position of the company. Comment on individual ratio is not desirable. **(T.Y. B.Com., Modified)**

3. Following financial statements of 'JAY Ltd.' are given to you. Rearrange them into vertical form and compute following ratios: (a) Operating ratio, (b) Net profit ratio, (c) Liquid ratio, (d) Proprietory ratio and (e) Capital gearing ratio.

Trading and Profit and Loss A/c for the year ended 31.3.2014

Particulars	**Amt. ₹**	**Particulars**	**Amt. ₹**
To Opening Stock	45,000	By Sales	4,00,000
To Purchases less Returns	2,20,000	By Closing Stock	95,000
To Wages	1,00,000	By Non-operating income	12,000
To Salaries	40,000		
To Office Rent	17,000		
To Interest	3,000		
To Non-operating Expenses	2,000		
To Advertisement	6,000		
To Transport on Sales	4,000		
To Net Profit	70,000		
₹	**5,07,000**	₹	**5,07,000**

Balance Sheet as on 31.3.2014

Liabilities	**Amt. ₹**	**Assets**		**Amt. ₹**
12% Preference Share Capital	40,000	Fixed Assets:		
Equity Share Capital	1,90,000	Original Cost	2,30,000	
Capital Reserve	15,000	(–) Depreciation	40,000	1,90,000
General Reserve	45,000	Investments (Short-term)		50,000
Profit and Loss A/c	10,000	Stock		95,000
15% Debentures	30,000	Debtors		85,000
Bank Loan	15,000	Prepaid Expenses		20,000
Creditors	70,000			
Bills Payables	5,000			
Bank Overdraft	20,000			
₹	**4,40,000**	₹		**4,40,000**

4. Following is the Balance Sheet of 'EVER GROWTH LTD.' as on 31.3.2014:

Liabilities	**Amt. ₹**	**Assets**	**Amt. ₹**
Equity Share Capital	4,50,000	Goodwill	35,000
Share Premium	45,000	Land and Buildings	2,75,000
General Reserve	1,60,500	Plant and Machinery	3,60,800

Profit and Loss A/c	1,28,500	Furniture and Fixtures	1,28,200
12% Debentures	2,60,000	Long-term investments	1,75,000
M.S.F.C. Loan	1,50,000	Short-term investments	48,500
Bank Overdraft	49,800	Sundry Debtors	1,69,700
Creditors	68,000	Bills Receivable	12,500
Bills Payable	5,400	Closing Stock	98,000
Provisions for Tax	35,800	Prepaid Expenses	27,500
Outstanding Expenses	17,000	Cash Balance	29,300
		Preliminary Expenses	10,500
₹	**13,70,000**	₹	**13,70,000**

You are required to:

(a) Rearrange the above Balance Sheet in vertical form to show following: (i) Proprietors' funds, (ii) Borrowed funds, (iii) Fictitious assets, (iv) Intangible assets, (v) Quick liabilities and (vi) Working capital.

(b) Comment on long-term stability of the company by calculating two relevant ratios.

5. Given below are extracts of Financial Statements of M/s Kiran Ltd.

Particulars	**31-3-2014** ₹
Stock	2,60,000
Debtors	1,00,000
Cash	1,40,000
Bills Receivable	1,00,000
Creditors	1,00,000
Bank Balance (Cr.)	30,000
Outstanding Expenses	10,000
Bills Payable	50,000
Total Purchases	8,00,000
Cash Purchases	2,00,000
Cash Sales	3,00,000
Credit Sales	12,00,000
Credit Allowed to Customers	11/2 months
Credit Allowed by Suppliers	3 months

From the above find out the following ratios and give your comment for the year ended 31.3-2014: (a) Current Ratio, (b) Liquid Ratio, (c) Debtors Turnover Ratios and Age of Debtors and (d) Creditors Turnover Ratios and Age of Creditors. **(T.Y. B.Com., Modified)**

6. Following Balance Sheet of Roland Ltd.

Liabilities	**Amt. ₹**	**Assets**	**Amt. ₹**
Equity Share Capital	1,00,000	Cash in Hand	2,000
6% Preference Share Capital	1,00,000	Cash at Bank	10,000
7% Debentures	40,000	Bills Receivable	30,000
8% Public Deposits	20,000	Debtors	70,000
Bank Overdraft	40,000	Stock	40,000
Creditors	60,000	Loose Tools	20,000
Proposed Dividend	10,000	Furniture	30,000
Proposed Expense	7,000	Machinery	1,00,000
Reserves	1,50,000	Land and Building	2,20,000
Provision for Tax	20,000	Goodwill	30,000
Profit and Loss Account	20,000	Preliminary Expenses	10,000
		Cash in Arrears in Equity Shares	5,000
₹	**5,67,000**	₹	**5,67,000**

Convert the above Balance Sheet in vertical form and calculate: (i) Current Ratio, (ii) Quick Ratio, (iii) Proprietary Ratio, (iv) Capital Gearing Ratio and (v) Stock to Working Capital Ratio. Given your comments.

7. The following is the Trading and Profit and Loss A/c and Balance Sheet of Sunder Mumbai Ltd.

Trading and Profit and Loss Account as on 31st March, 2014

Liabilities	Amount	Assets	Amount
To Opening Stock	10,000	By Sales	1,50,000
To Purchases	55,000	By Closing Stock	15,000
To Wages	20,000		
To Power and Fuel	10,000		
To Gross Profit c/d	70,000		
	1,65,000		1,65,000
To Administration Expenses	15,000	By Gross Profit b/d	70,000
To Interest	3,000	By Rent Received	1,500
To Depreciation on Machinery	5,000		
To Selling Expenses	12,000		
To Loss by Fire	2,000		
To Provision for Tax	14,500		
To Net Profit	20,000		
	71,500		71,500
To Interim Dividend	10,000	By Opening Balance	15,000
To Closing Balance	25,000	By Net Profit	20,000
₹	**35,000**	₹	**35,000**

Balance Sheet as on 31st March, 2014

Liabilities	₹	Assets	₹
Equity Share Capital	1,00,000	Land and Buildings	50,000
Profit and Loss A/c	25,000	Plant and Machinery	30,000
Creditors	15,000	Furniture	20,000
Secured Loans	10,000	Stock	15,000
Bank Overdraft	25,000	Debtors	15,000
Provision for Tax	5,000	Investments	12,500
Outstanding Expenses	5,000	Cash	17,500
		Goodwill	20,000
		Miscellaneous Expenditure	5,000
₹	**1 ,85,000**	₹	**1,85,000**

Calculate the following ratios after converting above financial statements in vertical form: (a) Inventory Turnover Ratio, (b) Current Ratio, (c) Gross Profit Ratio, (d) Proprietary Ratio, (e) Operating Ratio and (f) Liquid Ratio. **(T.Y. B.Com., Modified)**

8. The following are balance sheets as on 31st March, 2014 of two different companies.

Liabilities	Tiny ₹	Giant ₹	Assets	Tiny ₹	Giant ₹
Equity Share Capital	1,000	2,000	Trade Marks and Copyright	200	500
General Reserve	200	500	Building	500	1,000
Profit and Loss A/c	300	600	Machinery	400	900
Preference Share Capital	400	800	Furniture	10	50
Secured Loan	250	600	Stock	700	1,500
Provision for Income Tax	100	200	Trade Investment	100	150
Bank Overdraft	50	100	Debtors	600	1,400
Creditors	400	1,000	Bills Receivable	100	200
Provision for Doubtful Debts	10	20	Goods with Consignee	10	20
			Share Issue Expenses	90	100
₹	**2,710**	**5,820**	₹	**2,710**	**5,820**

Investment depreciated by 10% which effect is required to be given. Prepare Common Size Balance Sheet in vertical form. Also compute following ratios and give your comments: (a) Debt-equity Ratio and (b) Stock to Working Capital Ratio.

9. The following is the Balance Sheet of Arjun Ltd. as on 31st March 2014.

Liabilities	Amount	Assets	Amount
Equity Share Capital	2,00,000	Building	2,00,000
Preference Share Capital	1,00,000	Machinery	1,00,000
10% Debentures	2,00,000	Intangible Assets	1,00,000
General Reserves	1,50,000	Marketable Investment	50,000
Profit and Loss A/c	1,00,000	Debtors	1,50,000
Bank Overdraft	60,000	Stock	1,10,000
Provision for Tax	80,000	Bank Balance	1,50,000
Creditors	1,20,000	Advance for Goods	1,00,000
		Preliminary Expenses	50,000
₹	**10,10,000**	₹	**10,10,000**

Other information for the year ended 31st March, 2014:

(a) Sales ₹ 40,00,000 cost of goods sold was 92.5% of sales.

(b) Total operating expenses were ₹ 1,50,000 out of which finance expenses were ₹ 30,000 and balance office expenses and selling expenses were in the ratio of 2 : 3.

(c) Non-operating income was 2.5 times the amount of non-operating expenses, total non-operating expenses were ₹ 20,000 incurred during the year.

(d) Income tax provision ₹ 40,000 transferred to general reserve ₹ 40,000.

(e) Contingent liabilities on 31st March, 2001 was ₹ 1,50,000 not provided for.

(f) Closing Stock on 31st March, 2001 was more than opening stock by ₹ 10,000.

(g) Debtors on 1st April, 2000 were ₹ 2,50,000. Assume 360 days in a year.

Arrange the Balance Sheets and Profit and Loss A/c in a vertical form and calculate the following ratios: (a) Current ratio, (b) Liquid ratio, (c) Stock turnover ratio, (d) Debtors turnover ratio and Collection period, (e) Capital gearing ratio and (f) Proprietary ratio. **(T.Y. B.Com., Modified)**

10. Following is the Balance Sheets of Bharat Ltd. for the year ended 31st December, 2013 and 2014.

Liabilities	2013 ₹	2014 ₹	Assets	2013 ₹	2014 ₹
Equity Capital	1,00,000	1,00,000	Fixed Assets (Cost)	1,60,000	2,30,000
8% Preference Share Capital	–	65,000	Stock	20,000	25,000
Reserves	10,000	15,000	Debtors	50,000	62,500
Profit and Loss A/c	7,500	10,000	Bills Receivable	–	30,000
10% Debentures	50,000	75,000	Prepaid Expenses	5,000	6,000
Bank Overdraft	25,000	25,000	Cash at Bank	21,000	13,000
Creditors	20,000	25,000	Cash in Hand	5,000	15,000
Provision for Taxation	10,000	12,500	Calls in Arrears	4,000	3,000
Proposed Dividend	7,500	12,500	Share Issue Expenses	5,000	10,500
Depreciation Provision	40,000	55,000			
₹	**2,70,000**	**3,95,000**	₹	**2,70,000**	**3,95,000**

Prepare a Comparative Balance Sheet in vertical form and interpret the same after calculating following ratios: (i) Capital Gearing Ratio, (ii) Stock to Working Capital Ratio, (iii) Liquid Ratio and (iv) Debt-equity Ratio.

11. X Ltd and Y Ltd. are in the same line of business. Followings are their Balance Sheets as on 31st December, 2014:

Balance Sheet as on 31st December, 2014

Liabilities	X Ltd. ₹	Y Ltd. ₹	Assets	X Ltd. ₹	X Ltd. ₹
Equity Share Capital	7,00,000	2,00,000	Land	1,00,000	80,000
Reserve and Surplus	1,00,000	1,00,000	Building	2,50,000	2,00,000
12% Debentures	2,00,000	5,00,000	Plant and Machinery	5,00,000	3,00,000
Creditors	1,20,000	70,000	Debtors	2,10,000	1,10,000
Bills Payable	40,000	20,000	Stock	1,00,000	2,00,000
Proposed Dividend	20,000	20,000	Cash and Bank	55,000	40,000
Provision for Tax	35,000	20,000			
₹	**12,15,000**	**9,30,000**	₹	**12,15,000**	**9,30,000**

You are required to rearrange the Balance Sheets (in vertical form) and calculate the following ratios for both the companies and comment thereon (any three): (a) Proprietory ratio, (b) Capital-Gearing ratio, (e) Current ratio or (d) Stock to Working Capital ratio. **(T.Y. B.Com., Modified)**

12. The summarized Balance Sheet of Good Luck Ltd. as on 31st March, 2010 is as follows:

Liabilities	₹ in lakhs	Assets		₹ in lakhs
Equity Share Capital (₹ 100 each)	150	Fixed Assets (at cost)	420	
10% Preference Share Capital	80	*Less:* Depreciation	50	370
Reserve and Surplus	90	Stock		50
Profit and Loss A/c	40	Debtors		60
10% Debentures	50	Cash at Bank		30
Provision for Taxation	20			
Sundry Creditors	80			–
	510			510

The following particulars are also given for the year.

	in lakhs
Net Sales (Credit)	240
Profit before Interest and Tax	65
Net Profit after tax	40
Market Price per Equity Share is ₹ 150	

Calculate the following ratios: (i) Acid Test Ratio, (ii) Debtors Turnover Ratio (360 days in a year), (iii) Capital Gearing Ratio, (iv) Debt Service Ratio and (v) Return on Proprietor's Fund.

Give your comments on Acid Test Ratio only.

Note: Preparing balance sheet in vertical form is not required.

13. "Cosmos India Ltd."

Balance Sheet as on 31st December, 2014

Liabilities	₹	Assets	₹
Capital Reserve	1,26,000	Copyright	1,00,000
General Reserve	1,20,000	Cash	21,000
Provision for Tax	50,000	Calls in Arrears	9,575
Commission received in Advance	10,875	Plant and Machinery	4,20,000
15% Debentures	1,60,000	Debtors	3,00,425
12% Bank Loan	40,000	Prepaid Insurance	15,375
6% Preference Share Capital	2,00,000	Land and Building	5,00,000
Equity Share Capital	10,00,000	Fixtures	25,000
Bills Payable	49,125	Furniture	75,000
Profit and Loss A/c	9,000	Preliminary Expenses	18,625
Bank Overdraft	10,740	Goodwill	1,00,000
Share Premium	15,000	Investments (Long-term)	1,75,000
Sundry Creditors	1,89,260	Stock	2,00,700
		Market Investments	19,300
	19,80,000		**19,80,000**

You are required to rearrange above Balance Sheet in vertical from and compute the following ratios: (a) Current Ratio, (b) Proprietory Ratio and (c) Capital Gearing Ratio. **(T.Y. B.Com., Modified)**

14. Following financial statements are of XYZ Ltd. for 2014:

Trading and Profit and Loss A/c for the year ended 31st March, 2014

Liabilities	₹	Assets	₹
To Opening Stock	70,000	By Sales	16,60,000
To Purchases	15,00,000	By Closing Stock	1,60,000
To Gross Profit	2,50,000		
	18,20,000		**18,20,000**
To Depreciation	36,000	By Gross Profit	2,50,000
To Other Expenses	74,000	By Commission	10,000
To Tax Provision	40,000		
To Proposed Dividend	16,000		
To Net Profit	94,000		
	2,60,000		**2,60,000**

Balance Sheet as at 31st March, 2014

Liabilities	₹	Assets	₹
Share Capital	3,00,000	Cash	48,000
Bank Overdraft	38,000	Stock	1,60,000
Creditors	34,000	Debtors	1,38,400
Provision for Depreciation	54,000	Land and Building	92,000
Provision for Tax	40,000	Machinery	1,28,600
Proposed Dividend	16,000	Goodwill	20,000
Profit and Loss A/c	1,80,000	Loan and Advance	60,000
		Preliminary Expenses	15,000
	6,62,000		**6,62,000**

Rearrange the above in a vertical from and also calculate: (a) Stock Turnover Ratio, (b) Debtors Turnover Ratio and (c) Creditors Turnover Ratio. **(T.Y. B.Com., Modified)**

15. Given below are some of the information of Parekar Ltd. as on 31st March, 2014:

	₹
Debtors	30,000
Outstanding Manufacturing Expenses	17,000
Cash Balance	23,000
Bills Payable and Creditors	38,000
Machinery (Imported)	30,000
Income Earned but not Received	6,000
Bank Overdraft	15,000
Bills Receivable	7,000
Prepaid Travelling Expenses	4,000

Using above data, calculate current ratio and liquid ratio and comment on it.

16. Calculate Return on Capital Employed and Return on Proprietors' Fund from following information:

	₹	
Equity Capital	3,00,000	
General Reserves	4,00,000	
Profit and Loss A/c	1,50,000	(Cr.)
Sundry Creditors	2,00,000	

Operating Profit	3,50,00	(before Interest and Tax)
Long-term Loan	3,50,000	(at 12% p.a. Interest)
Tax Rate is 30%		

17. The following items appear in the financial statements of M Ltd. as on 31st December, 2014.

Particulars	₹	Particulars	₹
Cash	45,000	Land and Buildings	8,00,000
Bills Receivable	60,000	Stock	2,75,000
Creditors	4,00,000	Prepaid Expenses	60,000
General Reserve	1,00,000	Debtors	5,00,000
Plant and Machinery	5,50,000	Debentures	3,00,000
Bank Overdraft	50,000	Equity Share Capital	10,00,000
Profit and Loss A/c (Credit)	2,25,000	Proposed Dividend	90,000
Long Term Investments	20,000	Advance Tax	1,00,000
Provision for Tax	2,00,000	Bills Payable	45,000
Preliminary Expenses not yet w/off	25,000	Unclaimed Dividend	25,000

You are required to arrange the above items in the form of vertical (columnar) Balance Sheet and determine: (a) Current Assets, (b) Fixed Assets, (c) Current Liabilities, (d) Proprietory Funds, (e) Quick Assets and (f) Quick Liabilities.

18. From the following data, prepare the Balance Sheet of ABC Co. Ltd. as at 31st March, 2009:

Current Ratio	1.75
Liquid Ratio (Current Assets less Stock to Current Liabilities Ratio)	1.25
Gross Profit Ratio	25%
Debt Collection Period	1.5 months
Sales for the Year	₹ 12,00,000
Stock Turnover Ratio (Based on Closing Stock)	9
Capital Gearing Ratio (Long-term Debt/Share Capital)	0.60
Fixed Assets to Net Worth	1.25
Cost of Sales to Fixed Assets	1.20
Reserves and Surplus to Share Capital	0.20

(Assume all sales are on credit, and the year is of 360 operating days)

19. Following are the Balance Sheet of X Ltd. and A Ltd. as on 31st March, 2014 together with supplementary information for the year ended on that date:

Balance Sheet as on 31st March, 2014

Liabilities	X Ltd. ₹	Y Ltd. ₹	Assets	X Ltd. ₹	X Ltd. ₹
Paid up Share Capital	2,00,000	3,50,000	Goodwill	30,000	50,000
Reserves	50,500	60,000	Building	1,20,000	2,40,000
Profit and Loss A/c	12,250	1,02,200	Plant and Machinery	29,000	42,000
Bank Overdraft	11,250	14,800	Stock	66,000	93,000
Sundry Creditors	36,000	58,000	Debtors	85,000	1,75,000
Provisions for Taxation	20,000	15,000			
	3,30,000	**6,00,000**		**3,30,000**	**6,00,000**

Additional Information:

	X Ltd.	A Ltd.
Sales for the year	8,40,000	10,50,000
Stock on 31st March, 2003	60,000	1,07,000
Gross Profit	2,10,000	2,50,000

You are required to compute the following ratios of both companies: (a) Current Ratio, (b) Liquid Ratio, (c) Proprietory Ratio, (d) Stock Turnover Ratio and (e) Debtors Turnover Ratio in number of times.

Also give your opinion on short-term and immediate financial solvency. All sales are on credit basis.

20. Classify the following accounts and state whether it is: (i) Current Assets, (ii) Fixed Assets, (iii) Current Liability, (iv) Long-term Liability, (v) Shareholders' Fund and (vi) None of these:

(a) Delivery truck
(b) Accounts payable
(c) Bills payable (90 days)
(d) Delivery expenses
(e) Equity capital
(f) Prepaid insurance
(g) Trade mark
(h) Short-term investment
(i) Income tax payable
(j) Debenture redeemable after seven years
(k) Tsunami relief fund deducted from employee' salary
(l) Depreciation

21. From the information given below, prepare Balance Sheet in a vertical form, suitable for analysis and calculate the following ratios: (a) Capital Gearing Ratio, (b) Proprietory Ratio, (c) Current Ratio, (d) Liquid Ratio and (e) Stock of Working Capital.

Liabilities	₹	Assets	₹
Cash at Bank	12,500	Land and Building	2,00,000
Expenses Paid in Advance	15,500	Stock	68,250
Creditors	1,01,500	Debtors	1,30,750
Bills Receivable	5,250	Plant and Machinery	1,36,000
12% Debentures	62,500	Loan from Director	1,00,000
Equity Share Capital	2,50,000	(Repayable after three years)	
Profit and Loss A/c	54,250		

22. Complete the following balance sheet from the information given below:

Liabilities	₹	Assets	₹
Equity Share Capital (₹ 10 each)	?	Fixed Assets	?
Reserve and Surplus	?	Current Assets:	
20% Debentures	5,00,000	Stock	?
Current Liabilities:		Debtors	?
Sundry Creditors	?	Bank/Cash Balance	?
Provision for Tax (Current Year)	?		–
	?		?

Following information is available:

(a) Gross profit ratio is 25% and G.P. is ₹ 12,00,000.
(b) Operating expenses (including debentures interest) ₹ 8,00,000.
(c) Rate of Income tax is 50%.
(d) Purchases and sales are on credit basis.
(e) Debtors turnover ratio (Sales/Debtors) = 12 times.
(f) Creditors turnover ratio (Cost of Sales/Creditors) = 12 times.
(g) Earning per share ₹ 20.
(h) Stock turnover ratio = 10 times.
(i) Debt-equity ratio 0.25 : 1.
(j) Current ratio 2 : 1.

23. Following is the Profit and Loss A/c and Balance Sheet of Adhiraj Ltd.:

Profit and Loss A/c for the year ended 31st December, 2014

Particulars	₹	Particulars	₹
To Opening Stock	20,000	By Sales	4,50,000
To Purchases	2,00,000	By Closing Stock	80,000
To Wages	50,000		
To Factory Expenses	70,000		
To Gross Profit c/d	1,90,000		
	5,30,000		5,30,000
To Administration Expenses	60,000	By Gross Profit b/d	1,90,000
To Selling Expenses	40,000	By Interest Received	5,000
To Interest on Loan	5,000		

To Debenture Interest	8,000		
To Net Profit	82,000		
	1,95,000		1,95,000
To Tax Provision	20,000	By Net Profit	82,000
To Proposed Dividend	20,000		
To Balance Profit	42,000		
	82,000		82,000

Balance Sheet as on 31st December, 2014

Liabilities	₹	Liabilities	₹
Equity Share Capital (₹ 10)	2,00,000	Land and Building	1,75,000
9% Preference Share Capital	1,50,000	Machinery	1,50,000
8% Debentures	1,00,000	Furniture	1,00,000
Reserve	50,000	Goodwill	50,000
Profit and Loss A/c	30,000	Patents	50,000
Short-term Loan (Repaid within one year)	1,00,000	Vehicles	1,40,000
Bank Overdraft	75,000	Investment	50,000
Sundry Creditors	1,40,000	Stock	80,000
Bills Payable	30,000	Debtors	90,000
Provision for Tax	20,000	Bills Receivable	30,000
Proposed Dividend	20,000		
	9,15,000		**9,15,000**

Market price of equity share is ₹ 7.

Calculate the following ratios:

(a) Acid Test Ratio
(b) Capital Gearing Ratio
(c) Stock Turnover Ratio
(d) Debtors Turnover Ratio
(e) Creditors Turnover Ratio
(f) Return on Capital Employed Ratio
(g) Stock to Working Capital Ratio
(h) Operating Ratio.

Note: Vertical final accounts need not be prepared.

24. Following are the financial statements of two similar companies:

Balance Sheet as at 31st December, 2014

Liabilities	X Ltd. ₹	Y Ltd. ₹	Assets	X Ltd. ₹	X Ltd. ₹
Share Capital			Land and Building	1,400	1,200
Equity Shares of ₹ 10 each	4,000	4,000	Plant	4,100	3,200
Revenue Reserve	1,950	1,000	Stock	2,850	2,100
8% Debentures	1,000	1,000	Debtors	2,600	1,900
Trade Creditors	2,800	1,400	Investment (Long-term)	–	300
Other Creditors	250	200	Bank	100	300
Provision for Tax	900	700	Deposits	150	100
Proposed Dividend	300	200			
	11,200	**9,100**		**11,200**	**9,100**

Income Statement for 2014

Particulars	X Ltd.	Y Ltd.	Particulars	X Ltd.	X Ltd.
Cost of Sales	10,800	9,000	Sales	15,000	12,000
Operating Expenses	2,900	2,000			
Taxation	550	410			
Net Profit after Tax	750	590			
	15,000	**12,000**		**15,000**	**12,000**

On the basis of above information, you are required to compute separately the following ratios: (a) Capital Gearing Ratio, (b) Current Ratio, (c) Debtors Turnover Ratio and (d) Return on Proprietory Fund.

Note: Vertical final accounts need not be prepared **(T.Y. B.Com., Modified)**

25. From the following information, calculate:
(a) Return on Capital Employed (b) Debtors Turnover Ratio (in times)
(c) Stock to Working Capital Ratio (d) Current Ratio
(e) Proprietary Ratio (on the basis of Total Fund)

Some of relevant balances as on 31st March, 2014 are given below:

Particulars	₹
Equity Share Capital (of ₹ 10each)	2,00,000
6% Preference Share Capital	1,00,000
8% Debentures	1,50,000
Debtors	18,000
Creditors	15,000
Cash in Hand	20,000
Bills Receivable	12,000
Bank Overdraft	8,000
Reserves and Surplus	43,000
Closing Stock	32,500
Provision for Taxation	35,000
Proposed Dividend	10,000

Other information for the year 2013-14:

Particulars	₹
Sales	10,00,000
Cost of Sales	7,50,000
Net Profit before Tax	1,00,000

26. Pawan Ltd. has the following Trading and Profit and Loss Account for the year ended 31st December, 2014 and Balance Sheet as at that date.

Trading and Profit and Loss Account for the year ended 31st December, 2014

Particulars	₹	₹	Particulars	₹	₹
To Opening Stock		3,50,000	By Sales		
To Purchases – Credit		16,50,000	Cash	6,00,000	
To Carriage – Inward		5,00,000	Credit	24,00,000	30,00,000
To Gross Profit c/d		8,00,000	By Closing Stock		3,00,000
Total		**33,00,000**	**Total**		**33,00,000**
To Administrative Expenses		1,92,000	By Gross Profit b/d		8,00,000
To Selling Expense		50,000	By Other Income		18,000
To Depreciation		1,00,000			
To Interest		94,000			
To Income Tax		1,30,000			
To Net Profit c/d		2,52,000			
Total		**8,18,000**	**Total**		**8,18,000**

Balance Sheet as on 31st December, 2014

Liabilities	₹	Assets	₹	₹
Equity Share Capital (₹ 10)	7,00,000	Plant and Machinery	20,00,000	
10% Preference Share Capital	4,00,000	*Less:* Depreciation	5,00,000	
Reserve and Surplus	4,00,000			15,00,000
Long-term Loan	1,00,000	Goodwill		2,80,000
Debentures	6,00,000	Stock		3,00,000
Creditors	1,20,000	Debtors		2,00,000
Bills Payable	40,000	Prepaid Expenses		50,000
Accrued Expenses	40,000	Marketable Securities		1,50,000
Provision for Tax	1,30,000	Cash		50,000
Total	**25,30,000**	**Total**		**25,30,000**

The market price of the share of the company on 31st December, 2014 was ₹ 9.25.

Particulars	₹	₹
Reserves at the beginning	2,93,000	
Net Profit during the year	2,52,000	5,45,000
Interim Dividend		1,45,000
Reserves at the close of the year		4,00,000

Calculate the following ratios: (a) Return on Proprietors' Fund, (b) Acid Test Ratio, (c) Inventory Net Current Asset Ratio, (d) Capital Gearing Ratio, (e) Debt Service Ratio, (f) Creditors Turnover Ratio, (g) Opening Ratio and (h) Stock Turnover Ratio.

Note: No need to convert the statements into vertical form. **(T.Y.B.Com., Modified)**

27. Following are the Balance Sheets of X Ltd. as on 31st March, 2014 and 31st March, 2015.

Liabilities	31-3-2014 ₹	31-3-2015 ₹
Share Capital	4,50,000	6,60,000
Retained Earnings	2,31,000	2,00,000
Provision for Income	84,000	–
Debentures	2,20,000	1,80,000
Accounts Payable	58,000	64,000
Other Current Liabilities	21,000	33,000
	10,64,000	**11,37,000**
Assets		
Building and Equipments	4,50,000	5,00,000
Land	80,000	80,000
Patents	55,000	65,000
Accounts Receivables	54,000	46,000
Inventories	3,00,000	3,12,000
Prepaid Expenses	6,000	4,000
Cash	1,19,000	1,30,000
	10,64,000	**11,37,000**

Calculate following ratios for two years and make comparison: (i) Debt-equity Ratio, (ii) Quick Ratio, (iii) Stock to Working Capital Ratio and (iv) Proprietary Ratio.

28. Following is the Balance Sheet of Star Products Ltd.

Liabilities	As on 31/03/2014 (₹)	Assets	As on 31/03/2014 (₹)
Equity Share Capital	5,00,000	Fixed Assets	13,00,000
General Reserve	3,00,000	Investments	4,00,000
Securities Premium	25,000	Stock	8,50,000
10% Debentures	7,50,000	Sundry Debtors	5,00,000
Profit and Loss A/c	7,40,000	Prepaid Expenses	40,000
Sundry Creditors	2,30,000	Advance Income Tax	78,000
Bank Overdraft	3,95,000	Cash and Bank Balances	62,000
Provision for Taxation	1,80,000	Share Issue Expenses	10,000
Proposed Equity Dividend	1,50,000	Preliminary Expenses	30,000
Total	**32,70,000**	**Total**	**32,70,000**

You are required to compute the following ratios and give your comments on each ratio with reference to standard ratio: (i) Current Ratio, (ii) Liquid Ratio, (iii) Proprietary Ratio and (iv) Stock to Working Capital Ratio.

Preparing Balance Sheet in vertical form is not required. **(T.Y. B.Com., Modified)**

29. Following is the Revenue statement of PRODENT LTD.:

Trading, Profit and Loss Account for the year ended 31st March, 2014

Particulars	₹	Particulars	₹
To Opening Stock	27,150	By Sales	2,55,000
To Purchases	1,63,575	By Closing Stock	42,000
To Carriage Inward	4,275	By Interest Received on Investment	2,700
To Office Expenses	45,000		
To Sales Expenses	13,500		
To Loss on Sale of Fixed Asses	1,200		
To Net Profit c/d	45,000		
Total	**2,99,700**	**Total**	**2,99,700**

Calculate the following ratios: (a) Gross Profit Ratio, (b) Operating Ratio, (c) Stock Turnover Ratio, (d) Office Expenses Ratio and (e) Net Profit before Tax Ratio.

Note: Vertical revenue statement need not be prepared. **(T.Y. B.Com., Modified)**

30. M/s. MILIND PRODUCT LTD. furnishes you their Profit and Loss Account for year ending 31st March, 2014 and Balance Sheet as on that date.

Dr. Profit and Loss Account Cr.

Particulars	₹	Particulars	₹
To Cost of Goods Sold	9,50,000	By Sales	16,00,000
To Opening Expenses	2,57,000		
To Interest	43,000		
To Provision for Taxation	1,75,000		
To Net Profit c/d	1,75,000		
	16,00,000		**16,00,000**
To Provision for dividend	70,000	By Balance b/f	50,000
To Balance c/f	1,55,000	By Net Profit b/d	1,75,000
Total	**2,25,000**	**Total**	**2,25,000**

Balance Sheet

Liabilities	₹	Assets	₹
Equity Share Capital (₹ 10 each)	2,50,000	Land and Building	5,00,000
10% Preference Share Capital (₹ 100 each)	2,00,000	Plant and Machinery	3,50,000
General Reserves	2,50,000	Cop Rights	1,00,000
Profit and Loss A/c	1,55,000	Furniture	2,00,000
Securities Premium	50,000	Stock	3,00,000
9% Debentures	2,00,000	Debtors	2,00,000
Public Deposits	2,50,000	Bills Receivables	1,00,000
Accounts Payable	2,50,000	Cash and Bank	50,000
Bank Overdraft	50,000	Advance Tax	1,00,000
Provision for Taxation	1,75,000		
Provision for Dividend	70,000		
Total	**19,00,000**	**Total**	**19,00,000**

Market price per Equity Share ₹ 25.

Closing Stock is ₹ 1,00,000 less than the opening stock.

Calculate following ratios:

(a) Opening Ratio (b) Stock Turnover Ratio

(c) Stock to Working Capital Ratio (d) Dividend Payment Ratio

(e) Return on Equity Share Capital.

Vertical statement of account not expected. **(T.Y. B.Com., Modified)**

31. Calculate Stock Turnover Ratio from the following:

Particulars	₹	Particulars	₹
To Opening Stock	1,75,000	By Sales	25,00,000
To Purchases	16,50,000	By Closing Stock	1,50,000
To Wages	3,00,000		
To Carriage Inward	25,000		
To Gross Profit	5,00,000		
	26,50,000		**26,50,000**

32. Following is the Balance Sheet of Bills and Happiness Ltd. as at 31st March, 2014.

Liabilities	₹	Liabilities	₹
Equity Share Capital	1,00,000	Machinery	2,96,000
General Reserve	70,000	Investment	1,12,000
10% Preference Cap[ital	1,80,000	Stock in Trade	1,01,000
15% Debentures	1,20,000	Bills Receivable	20,000
Trade Payables	1,22,000	Trade Receivable Cash and Bank	49,000
Bank Overdraft	20,000	Profit and Loss A/c	38,000
Provision for Tax	18,000		14,000
Total	**6,30,000**	**Total**	**6,30,000**

Sales for the year ₹ 7,00,000; Gross profit Rate – 25% and opening stock is ₹ 1,09,000. Profit before Tax for the year ending 31st March, 2014 is ₹ 2,10,000.

You are required to compute the following and comment on:

(i) Current Ratio
(ii) Acid Test Ratio
(iii) Stock Turnover Ratio
(iv) Capital Gearing Ratio
(v) Proprietory Ratio
(vi) Debt-equity Ratio (Debt/Net Worth)
(vii) Return on Capital Employed

Redrafting the given Balance Sheet in vertical format is not expected. **(T.Y. B.Com., Modified)**

Chapter 4

Cash Flow Statement

CONCEPT

A cash flow statement discloses net increase (or decrease) in cash during an accounting period. As per AS-3 (Revised), the objective of cash flow statement is to provide information about cash flows of an enterprise which is useful in providing the users of financial statements with a basis to assess the ability of an enterprise to generate cash and cash equivalents to utilise those cash flows. The statement deals with the provisions of information about the changes in cash and cash equivalents during the accounting year. It classifies cash flows into operating, investing and financing activities.

DEFINITIONS IN AS-3

The following terms are used in this Statement with the meanings specified:

Cash comprises cash on hand and demand deposits with banks.

Cash equivalents are short-term, highly liquid investments that are readily convertible into known amounts of cash and which are subject to an insignificant risk of changes in value.

Cash flows are inflows and outflows of cash and cash equivalents.

Operating activities are the principal revenue-producing activities of the enterprise and other activities that are not investing or financing activities.

Investing activities are the acquisition and disposal of long-term assets and other investments not included in cash equivalents.

Financing activities are activities that result in changes in the size and composition of the owner's capital (including preference share capital in the case of a company) and borrowings of the enterprise.

CASH AND CASH EQUIVALENTS

1. Cash equivalents are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes. For an investment to qualify as a cash equivalent, it must be readily convertible to a known amount of cash and be subject to an insignificant risk of changes in value. Therefore, an investment normally qualifies as a cash equivalent only when it has a short maturity of, say, three months or less from the date of acquisition. Investments in shares are excluded from cash equivalents unless they are, in substance, cash equivalents; for example, preference shares of a company acquired shortly before their specified redemption date (provided there is only an insignificant risk of failure of the company to repay the amount at maturity).

2. Cash flows exclude movements between items that constitute cash or cash equivalents because these components are part of the cash management of an enterprise rather than part of its operating, investing and. financing activities. Cash management includes the investment of excess cash in cash equivalents.

CLASSIFICATION OF CASH INFLOWS AND OUTFLOWS

A cash flow statement focuses on various activities and items which bring about changes in the cash balance between two balance sheet dates. This statement covers all items which increase or decrease the cash of a business enterprise. For example, this statement includes items like receipt from debtors and payments to creditors. On the contrary, this statement will not cover items which have no immediate effect on cash increase or decrease. For instance, goods purchased on credit and goods sold on credit will not be included in this statement as these transactions have no effect on inflow and outflow of cash.

A cash flow statement aims to determine the effects of cash on different types of cash inflows and outflows. In this process, all cash flows, i.e., activities resulting into cash flows are classified into different categories. The ICAI's AS-3 'Cash Flow Statement' has classified cash flows into three categories:

1. Operating Activities (or Flows)
2. Investing Activities (or Flows)
3. Financing Activities (or Flows).

Classification of cash inflows and cash outflows relating to operating activities, investing activities and financing activities

1. Operating Activities: Operating activities are those transactions which are considered in the determination of net income. Examples of cash inflows in this category are cash received from debtors for goods and services, interest and dividend received on loans and investment. Examples of cash outflows in this category are cash payments for goods and services, merchandise, wages, interest, taxes, supplies and others.

AS-3 Cash Flow Statement states:

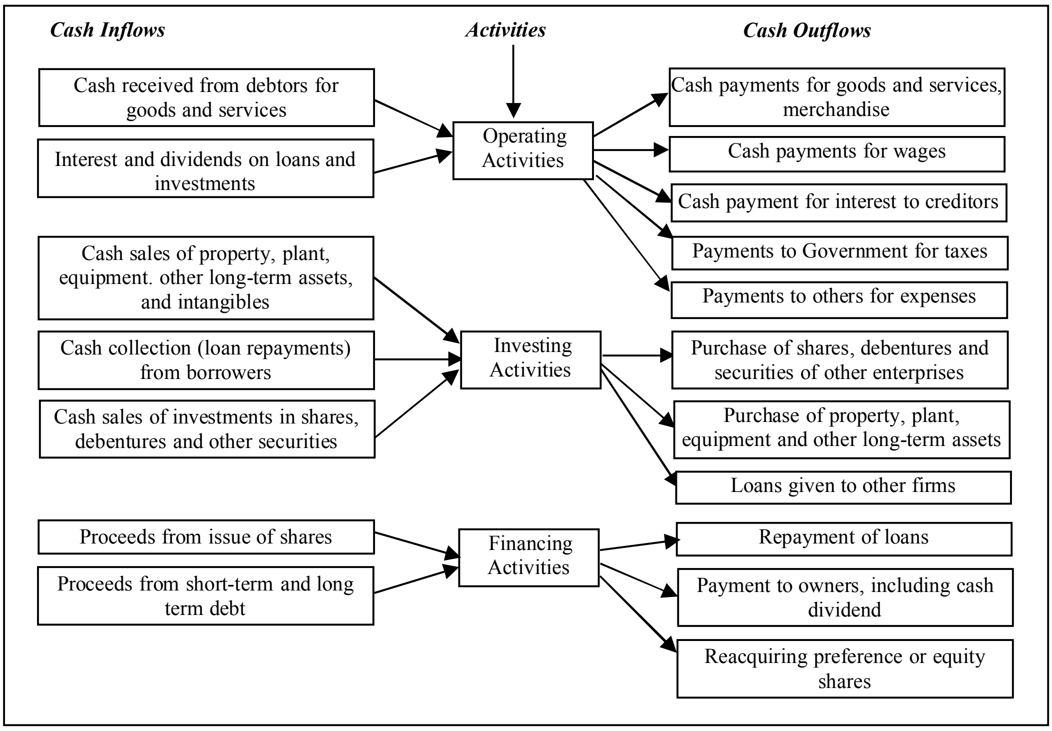
(i) The amount of cash flows arising from operating activities is a key indicator of the extent to which the operations of the enterprise have generated sufficient cash flows to maintain the operating capability of the enterprise, pay dividends, repay loans and make new investment without recourse to 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.

(ii) Cash flows from operating activities are primarily derived from the 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 from operating activities are:
   - (a) cash receipts from the sale of goods and the rendering of services;
   - (b) cash receipts from royalties, fees, commissions and other revenue;
   - (c) cash payments to suppliers for goods and services;
   - (d) cash payments to and on behalf of employees;
   - (e) cash receipts and cash payments of an insurance enterprise for premiums and claims, annuities and other policy benefits;
   - (f) cash payments or refunds of income taxes unless they can be specifically identified with financing and investing activities; and
   - (g) cash receipts and payments relating to future contracts, forward contracts, option contracts and swap contracts when the contracts are held for dealing or trading purposes.

(iii) 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.

(iv) Cash flows from operating activities are determined according to the activities relating to the business in which the enterprise deals in, e.g., interest and dividend received by financial institutions will be treated as operating cash flow.

Classification of Cash Inflows and Outflows



Classification of Cash Inflows and Outflows Relating to Operating Activities, Investing Activities and Financing Activities

Similarly, 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 trading securities are classified as operating activities. In the same manner, cash advances and loans made by financial enterprise are usually classified as operating activities since they relate to the main revenue-producing activity of that enterprise.

2. Investing Activities: Investing activities include acquisition of long-term or fixed assets; disposal of long-term or fixed assets; acquisition and disposal of intangible assets; purchase and sale of shares, debentures and other securities; lending of money and its subsequent collection. Cash inflows from investing activities generally include cash sales of property, plant, equipment and intangible assets, cash sales of investments in shares, debentures and other securities, cash collection (loans repayments) from borrowers. Cash outflows are purchase of shares, debentures and securities of other enterprises, purchase of property, plant, equipment and other long-term assets, loan given to other firms

According to AS-3 Cash Flow Statement:

(i) 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 are:
   (a) cash payments to acquire fixed assets (including intangibles). These payments includes those relating to capitalised research and development costs and self-constructed fixed assets;
   (b) cash receipts from disposal of fixed assets (including intangibles);
   (c) cash payments to acquire shares, warrants or debt instruments of other enterprises interests in joint ventures (other than payments for those instruments consider; be cash equivalents and those held for dealing or trading purposes);

(d) cash receipts from disposal of shares warrants or debt instruments 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);
(e) cash advances and loans made to third parties (other than advances and loans made by a financial enterprise);
(f) cash receipts from the repayment of advances and loans made to third parties (other than advances and loans of a financial enterprise);
(g) cash receipts from future contracts, forward contracts, option contracts and swap contracts excepts when the contracts are held for dealing or trading purposes, or the payments are classified as financing activities; and
(h) cash receipts from future contracts, 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.

(ii) When a contract is accounted for as a hedge of an identifiable position, the cash flows of the contract are classified in the same manner as the cash flow of the position being hedged.

3. Financing Activities: Financing activities relate to long-term liability and equity capital. A firm engages in financing activities when it obtains resources from owners, returns resources to owners, borrows resources from creditors and repays amounts borrowed. Cash inflows include proceeds from issue of shares and short-term and long-term borrowings. Cash outflows include repayment of loans and payments to owners, including cash dividends. Repayment of accounts payable or accrued liabilities are not considered repayment of loans under financing activities but all are classified as cash outflows under operating activities.

AS-3 Cash Flow Statement observes:

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 borrowing) to the enterprise. Examples of cash flows arising from financing activities are:

(a) cash proceeds from issuing shares or other similar instruments;
(b) cash proceeds from issuing debentures, loans, notes, bonds and other short- or long-term borrowings; and
(c) cash repayments of amounts borrowed.

CASH FLOW STATEMENT AND CASH RECEIPTS AND DISBURSEMENTS

A cash flow statement differs from the summary of cash receipts and disbursements. A cash flow statement is prepared by a rearrangement of items on the income statement and balance sheet, rather than from entries made to the cash account. Cash flow statement may also highlight the amount of cash generated by the firm's operations. This is not reported in statement of cash receipts and disbursements.

CASH FLOW AND INCOME STATEMENT

Cash flow statement apparently differs from income statement. An income statement includes adjustments in respect of expenses accrued in the calculation of periodic income, whereas cash flow statement excludes such adjustments. The largest item of difference between them is the allocation of fixed assets costs as depreciation. Also, the procedures adopted in the two statements are reflected in changes in balance sheet items. These would include changes in balances of trade debtors and trade creditors.

CASH PROFIT (CASH NET INCOME)

Accrual-based profit and loss account reveals accrual net income. By adjusting the items on the profit and loss account, one can arrive at cash profit or cash net income. It should be noted that cash profit relates to operating activities in the same way as profit and loss account focuses on net income determination from operating activities. But profit and loss account does not show cash inflow and outflow relating to operating activities because profit and loss account is prepared on accrual basis.

Cash profit and cash flow is not the same thing. Cash profit is confined to indicating cash flow relating to operating activities. But cash flow is a total concept indicating total inflows and outflows. Fox example, issue of equity shares is a source of cash inflow but will not be used for determining cash profit. Similarly, plant purchased will be cash outflow for its full value, but will not be used for determining cash profit.

PRESENTATION OF CASH FLOW STATEMENT

A cash flow statement can be presented in either the direct or indirect format. The investing and financing sections will be the same under either format. However, the operating section will be different.

DIRECT METHOD

Direct method is that method whereby major classes of gross cash receipts and gross cash payments are disclosed. Enterprises that utilise the direct method should report separately the following classes of operating cash receipts and payments:

1. Cash collected from customers, including lessees, licensee, and other similar items.
2. Interest and dividends received.
3. Other operating cash receipts, if any.
4. Cash paid to employees and other suppliers of goods or services, including supplies of insurance, advertising, and other similar expenses.
5. Interest paid.
6. Income taxes paid.
7. Other operating cash payments, if any.

Companies that use the direct method must provide a reconciliation of net income to net cash flow from operating activities in a separate schedule in the financial statements.

According to AS-3 Cash Flow Statement:

The direct method provides information which may be useful in estimating future cash flows and which is, not available under the indirect method, and is, therefore, considered more appropriate than the indirect method. Under the direct method, information about major classes of gross cash receipts and gross cash payments may be obtained either:

(a) from the accounting records of the enterprise; or

(b) by adjusting sales, cost of sales (interest and similar income and interest expense and similar charges for a financial enterprise) and other items in the statement of profit and loss for:

  (i) changes during the period in inventories and operating receivables and payables;

  (ii) other non-cash items; and

  (iii) other items for which the cash effects are investing or financing cash flows.

Illustration 1: From the following Profit and Loss Account of ABC Ltd. for the year ended 31st March, 2014, calculate cash generated from "Operating Activities" by Direct Method:

Profit and Loss Account for the year ended 31st March, 2014

Particulars	₹	₹	Particulars	₹
To Opening Stock		1,60,000	By Sale (Cash)	42,50,000
To Purchases (Cash)		31,00,000	By Commission Accrued	40,000

To Wages	4,40,000		By Dividend Received	60,000
Add: Outstanding	60,000	5,00,000	By Profit on Sale of Plant	2,40,000
To Salaries	2,20,000		(Sale Proceeds 22,40,000 – Book Value 2,00,000)	
Add: Outstanding	20,000		By Closing Stock	2,20,000
	2,40,000			
Less: Prepaid	10,000	2,30,000		
To Office Expenses		80,000		
To Selling Expenses		1,20,000		
To Depreciation		1,10,000		
To Income Tax Paid		20,000		
To Goodwill Written off		44,000		
To Preliminary of Expenses Written off		20,000		
To Net Profit		4,26,000		
		48,10,000		**48,10,000**

Solution: **Cash Flow from Operations**

Particulars	₹	₹
(A) Cash Receipts from Operating Activities:		
Cash Sales		42,50,000
Less: (**B) Cash Payment due to Operating Activities:**		
Purchases	31,00,000	
Wages	4,40,000	
Salaries	2,20,000	
Office Expenses	80,000	
Selling Expenses	1,20,000	39,60,000
Cash Flow from Operations before Tax		2,90,000
Less: Income Tax Paid		20,000
Net Cash Inflow from Operations		2,70,000

Notes:

1. Non-cash charges such as depreciation, Goodwill written off, Preliminary expenses written off have been ignored as these do not involve any outflow of cash.
2. Dividend received and profit on sale of plant are to be treated under cash flow from 'investing activities'.
3. Commission Accrued does not involve any cash inflow, hence ignored.
4. Changes in current assets and current liabilities are ignored.

Illustration 2: From the following Profit and Loss A/c and additional information of M/s Anurag Enterprise, compute cash flow from operations:

Profit and Loss Account for the year ended 31st March, 2014

Particulars	₹	₹	Particulars	₹
To Opening Stock		1,60,000	By Sales	
To Purchases			Cash	6,00,000
Cash	2,00,000		Credit	10,00,000
Credit	6,00,000	8,00,000	By Closing Stock	2,08,000
To Wages		48,000	By Commission	1,12,000
To Office Expenses		1,76,000	By Royalties	80,000
To Office Expenses		96,000	By Discount Received	40,000
To Bad Debts		16,000		

To Discount Allowed To Depreciation To Provision for Tax To Net Profit		32,000 1,20,000 2,40,000 3,52,000		
		20,40,000		**20,40,000**

Additional Information:

Particulars	31.03.2013 ₹	31.03.2014 ₹
Debtors	1,20,000	1,44,000
Creditors	1,12,000	80,000
O/s Selling Expenses	24,000	32,000
Prepaid Office Expenses	16,000	24,000
Accrued Royalties	96,000	88,000
Advance Commission	72,000	64,000
Provision for Tax	3,20,000	4,80,000

Solution: **Cash Flow from Operations**

Particulars	₹	₹
(A) Receipts from Operations:		
Cash Sales		6,00,000
Cash Received from Debtors		9,76,000
Cash from Royalties		88,000
Cash from Commission		1,04,000
		17,68,000
Less: **(B) Operating Cash Payments:**		
Cash Purchases	2,00,000	
Cash Paid to Creditors	6,32,000	
Cash Selling Expenses	88,000	
Cash Office Expenses	1,92,000	11,12,000
Cash Inflow from Operations before Tax		6,56,000
Less: Income Tax Paid (on Operating Incomes)		80,000
Net Cash flow from Operations		5,76,000

Cash Received from Debtors → Prepare Debtors A/c.

Debtors A/c

Particulars	₹	Particulars	₹
To Balance b/d	1,20,000	By Cash Received (Bal. Figure)	9,76,000
To Sales (Credit)	10,00,000	By Balance c/d	1,44,000
	11,20,000		11,20,000

Cash from Royalties

Opening Balance + Royalties as per Profit and Loss A/c – Closing Balance = Cash from Royalties

96,000 + 80,000 – 88,000 = ₹ 88,000

Cash from Commission

Closing Balance of Advance + Commission as per Profit and Loss A/c – Opening Balance of Advance = Cash from Commission

64,000 + 1,12,000 – 72,000 = 1,04,000

Cash Paid to Creditors

Opening Balance + Purchase – Closing Balance = Cash Paid to Creditors

80,000 + 6,00,000 – 1,12,000 = ₹ 6,32,000

INDIRECT METHOD

Under the indirect method, the net cash flow from operating activities is determined by adjusting net profit or loss for the effects of:

(a) Changes during the period in inventories and operating receivables and payables;
(b) Non-cash items such as depreciation, provisions, deferred taxes, and unrealised foreign exchange gains and losses; and
(c) all other items for which the cash effects are investing or financing cash flows.

Alternatively, the net cash flow from operating activities may be presented under the indirect method by showing the operating revenues and expenses excluding non-cash items disclosed in the statement of profit and loss and the changes during the period in inventories and operating receivables and payables.

The indirect method starts with net income and reconciles it to net cash flow from operating activities. The cash flow from operating activities is found by adjusting net income for: (i) changes in current assets and current liabilities, and (ii) depreciation expense. Depreciation expense is not a cash flow. Because it decreases net income, it is added back to net income in order to arrive at the operating cash flow. The following summarises the process:

Change	Adjustment to Net Income
Decrease in a current asset	Add
Increase in a current asset	Subtract
Decrease in a current liability	Subtract
Increase in a current liability	Add

The indirect method is more widely used, since it shows the relationship between the income statement and the Balance Sheet and therefore aids in the analysis of these statements.

REPORTING CASH FLOWS FROM INVESTING AND FINANCING ACTIVITIES

An enterprise should report separately major classes of gross cash receipts and gross cash payments arising from investing and financing activities.

Both the approaches, direct and indirect result in the same amount for cash flow from operations after making necessary adjustments. However, both the approaches have the arguments, pros and cons.

The arguments in favour of direct approach are that it identifies the major categories of cash receipts and cash payments arising from operating activities; it provides a more useful basis for estimating future cash flows; and it provides information that is not otherwise available in the balance sheet and profit and loss account. The direct method is a better indicator of company solvency, has a sounder conceptual framework and reflects accepted business practice. It permits its an evaluation of cash flow relating to specific line items of income statement such as sales and cost of goods sold. The empirical evidence indicates that the direct method is superior over the indirect method in predicting future operating cash flows and future net operating cash flows.

On the other hand, followers of the indirect approach argue that indirect method is less costly and more convenient to use by firms. It is argued that the direct approach would require information that is hard to collect and sensitive. One difficulty with the direct approach is that some of the cash flows may have characteristics of more than one category of cash flow.

However, the indirect method has also been criticised on two grounds. First, it contains unnecessary detail and may confuse the users. Another limitation of the indirect method is that the adding of expenses such as depreciation suggests that expenses are a source of cash. The conceptual and practical problems which underlie the indirect method are as follows:

(i) Ambiguity in the definition of "operations."
(ii) Diversity in reporting practices.

(iii) Impact of changes in the reporting entity on the non-cash current accounts.
(iv) Use of absorption costing in accounting for manufactured inventory.
(v) Measurement of current portion of long-term leases.
(vi) Reclassifications between current and non-current accounts.

Shows respectively direct and indirect method of preparing cash flow statement.

ABC Company for the year ended 31st December, 2013

Particulars	₹	₹
(A) Cash Flow from Operating Activities:		
Cash Receipts from:		
Sales		
Interest Received		
Cash Payments for:		
Purchases		
Operating Expenses		
Interest Payments		
Income Taxes		
Net Cash Flow from Operating Activities		
(B) Cash Flows from Investing Activities		
Sale of Plant Assets		
Sale of Investments		
Purchase of Plant Assets		
Purchase of Investments		
Net Cash Flows used by Investing Activities		
(C) Cash Flows from Financing Activities		
Repayment of Bonds and Debentures		
Issue of Common Shares		
Dividends Paid		
Net Cash Flows from Financing Activities		
Net Increase (Decrease) in Cash		

Cash Flow Statement (Direct Method)
ABC Company for the year ended 31st December, 2013

Particulars	₹	₹
(A) Cash Flow from Operating Activities:		
Net Income		
Adjustments to Reconcile Net Income to Net Cash Provided by Operating Activities		
Depreciation		
Gain on Sale of Investments		
Loss on Sale of Plant Asset		
Decrease in Accounts Receivable		
Increase in Inventory		
Decrease in Prepaid Expenses		
Increase in Accounts Payable		
Increase in Accrued Liabilities		
Decrease in Income Taxes Payable		
Net Cash Flows from Operating Activities		
(B) Cash Flows from Investing Activities		
Sales of Plant Assets		
Sale of Investments		
Purchase of Plant Assets		

	Purchase of Investments		
	Net Cash Flows Used by Investing Activities		
(C)	**Cash Flows from Financing Activities**		
	Repayment of Bonds and Debentures		
	Issue of Common Shares		
	Dividends Paid		
	Net Cash Flows from Financing Activities		
	Net Increase (Decrease) in Cash		

Cash flow Statement (Indirect Method)

PREPARING CASH FLOW STATEMENT

Before preparing cash flow statement, first of all, the following three steps have to be completed:

1. Determining cash flows from operations or operating activities.
2. Determining cash flows from investing activities.
3. Determining cash flows from financing activities.

After obtaining information regarding the above, a cash flow statement can be prepared. The three steps have been discussed below:

CASH FLOW FROM OPERATIONS

The profit and loss account focuses on net income determining from operating activities.

However, it does not show cash inflow and outflow relating to operating activities because the profit and loss account is prepared on accrual basis. In preparing profit and loss account, revenues are recorded even though cash for them has not been received. Similarly, expenses are recorded even though they may not have been paid. Therefore, to find cash flows from operations, one need to convert accrual basis income statement figures to cash basis by making adjustments. By way of adjustments, earned revenues will be converted into cash received from sales or customers and incurred expenses will be converted into cash expended, i.e., expenses actually paid in cash.

The conversion of accrual basis income statement to cash basis income statement along with required ac1justment has been, shown in the conversion process displayed in can be described as follows, using a short-cut calculation:

Accrual-basis Net Income

↓

Deduct Increase in Accounts Receivable (or Add Decrease in Accounts Receivable)

Deduct Increase in Merchandise Inventory (or Add Decrease in Merchandise Inventory)

Deduct Increase in Prepaid Expenses (or Add Decrease in Prepaid Expenses)

Add Increase in Accounts Payable (or Deduct Decrease in Accounts Payable)

Add Increase in Accrued Expenses (or Deduct Decrease in Accrued Expenses)

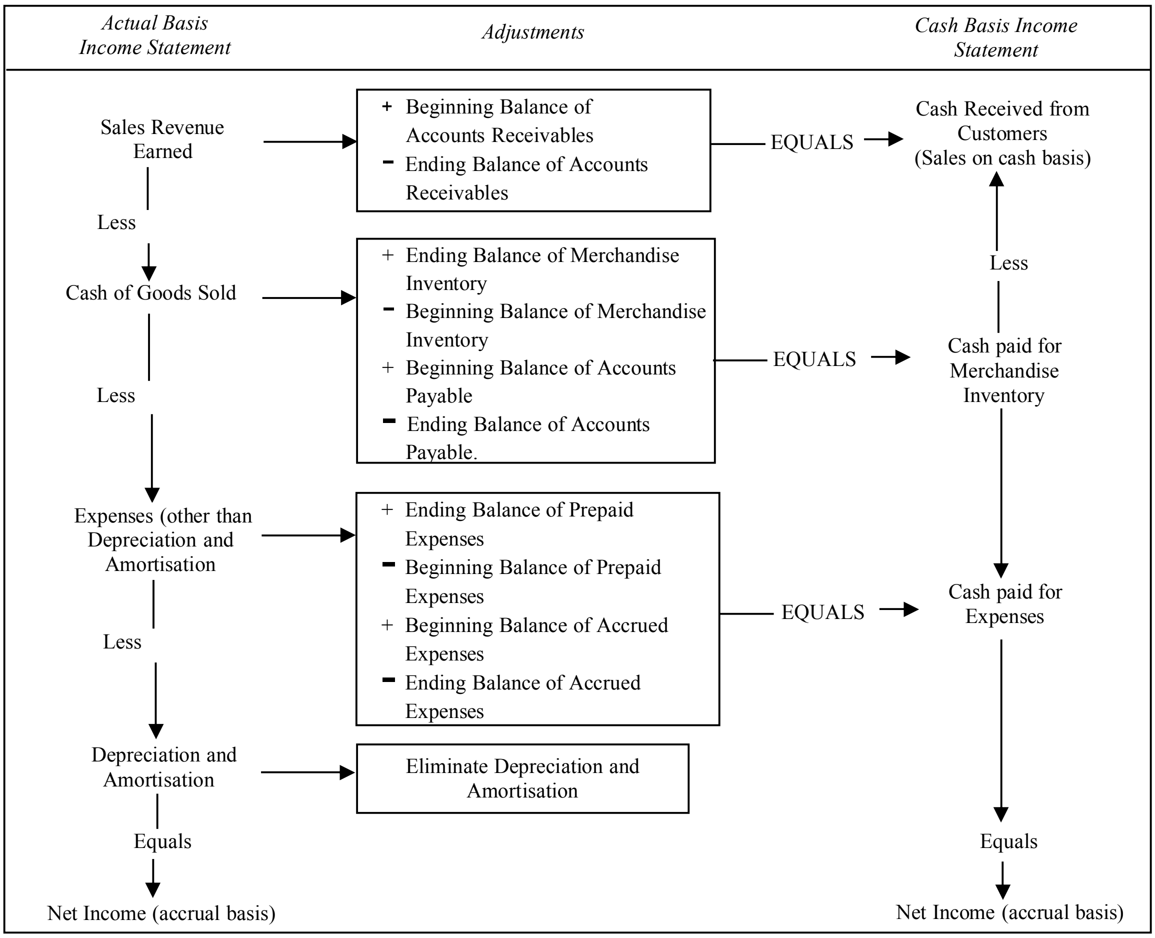
Add Depreciation and Amortisation Expenses for the year

↓

Cash-Basis Net Income

While making conversion, one should know the relationship between income statement accounts and balance sheet changes. Each individual item on the income statement should be viewed as it relates to a balance sheet account. On the accrual basis of accounting, the explanation for the difference between the amount of sales revenue and the receipts from those sales is found in the changes in accounts receivable and debtors account. Similarly, the difference between the amount of an expense .and the amount of payments for that expense is found in the changes of its associated asset or liability, such as prepaid rent or rent payable. If there is no associated balance sheet account for an item on the income statement, it is presumed that the amount shown on the income statement resulted in a cash flow exactly equal to that revenue or expense, shows relationship between some income statement accounts and balance sheet accounts.

Conversion of Accrual Basis Income Statement to Cash Basis Income Statement



Relationship between Accrual Basis and Cash Basis of Accounting

Financial Statement Relationship

	Income Statement Accounts	Related to Balance Sheet Accounts
1	Sales	Debtors
2	Cost of Goods Sold	(Inventory) (Creditors)
3	Salaries Expenses	Salaries Payable
4	Rent Expense	Rent Payable
5	Depreciation Expense	Accumulated Depreciation
6	Insurance Expense	Prepaid Insurance
7	Interest Expense	Interest Payable
8	Income Tax Expense	Income Taxes Payable

Relationship between Income Statement and Balance Sheet

PROVISIONS OF AS-3 ON TREATMENT OF CERTAIN ITEMS

1. **Interest and Dividend:** Cash flows from interest and dividends received and paid should be disclosed separately and classified on the basis of nature of the enterprise as shown below:
   For Financial Enterprises
   - Interest paid and received, dividend received as operating activities.
   - Dividend paid as financing activities.

   For Other Enterprises
   - Interest and dividend received as investing activities.
   - Interest and dividend paid as financing activities.
2. **Extraordinary items:** The cash flows associated with extraordinary items should be classified as arising from operating, investing or financing activities as appropriate. It should be disclosed separately. Few examples of such items are:
   (i) Claim for loss of stock – Operating activity
   (ii) Claims for loss of assets – Investing activity
   (iii) Recovery of bad debts – Operating activity
   (iv) Damages paid/received for breach of contract – Operating activity
   (v) Winnings from lotteries – Investing activity
   (vi) Cost of legal action to protect property title – Investing activity.
3. **Taxes on Income:** Cash flows arising from taxes on income should be separately disclosed and should be classified as cash flows from operating activities unless they can be specifically identified with financing and investing activities. For instance:
   (i) Provision for taxation for the current year – Non-cash charge under operating activity
   (ii) Tax paid – Operating cash outflow
   (iii) Income tax refund – Cash inflow from operating activity
   (iv) Capital gains tax – Cash outflow from investing activity
   (v) Corporate dividend tax – Cash outflow from financing activity.
4. **Foreign Currency Cash Flows:** Foreign currency cash flows should be converted at the exchange rate of the date of cash flow. Exchange gain/loss on cash and cash equivalents held in foreign currency will be reported as part of reconciliation of change in cash and cash equivalents for the period and hence, not reported in cash statement.
5. **Non-cash Transactions:** Investing and financing transactions that do not require the use of cash or cash equivalents are not shown in the cash flow statement. Examples of such non-cash transactions are:
   (i) Issue of shares or debentures for a consideration other than cash, i.e., against building, machinery etc.
   (ii) Conversion of debenture to equity shares.
   (iii) Purchase of business by issue of shares.

   AS-3 (Revised) recommends that such transactions may be disclosed under footnote to cash flow statement.
6. **Investments in Subsidiaries, Associates and Joint Venture:** Acquisition of interest in any subsidiary, associates or in any joint venture is treated as "Investing Activity". Similarly; sales or disposal of such interest and receipt of interest or dividends on such investments is treated as "Investing Activity".

Illustration 3 (Classification of Cash Flows): Giving reason, classify the following into cash flows from:

1. Operating Activities:
2. Investing Activities and
3. Financing Activities;

(i) Cash sales of goods-in-trade;
(ii) Cash paid to suppliers of raw materials;
(iii) Cash payments of salaries and wages to employees;
(iv) Cash payments to acquire a fixed asset, say, machinery;
(v) Cash proceeds from issuing shares at a premium;
(vi) Payment of dividends;
(vii) Interest received on investment;
(viii) Interest paid on debentures;
(ix) Payment of income tax; and
(x) Cash repayment of a long-term loan. **(T.Y. B.Com., Modified)**

Solution:

1. **Cash Flows from Operating Activities:**
   (i) Cash sales of goods-in-trade: Normal business activity of selling inventories goods-in-trade (cash inflow).
   (ii) Cash paid to suppliers of raw materials: Routine payments for purchasing the goods (cash outflow).
   (iii) Cash payments of salaries and wages: Cash payments to staff for their services in the office (cash outflow).
   (iv) Payment of income tax: Payment of tax on business income (cash outflow).
2. **Cash Flows from Investing Activities:**
   (iv) Cash payment to acquire a fixed asset, say, machinery: Purchase of long-term asset (cash outflow).
   (vii) Interest received on investment: It is an income on investments (cash inflow).
3. **Cash Flows from Investing Financing Activities:**
   (v) Cash proceeds from issuing shares at premium: Issue of share capital along with the premium (cash inflow).
   (vi) Payment of dividends: It is related to issue of share capital, a financing activity (cash outflow).
   (viii) Interest paid on debentures: Payment associated with loan (or borrowed) capital (cash outflow).
   (x) Cash repayment of a long-term loan: Redemption of loan or borrowed capital (cash outflow).

Illustration 4: The net income reported on the income statement for the year was ₹ 1,10,000 and depreciation of fixed assets for the year was ₹ 44,000. The balances of the current asset and current liability accounts at the beginning and end of the year are as follows.

Particulars	End of the Year ₹	Beginning of Year ₹
Cash	1,30,000	1,40,000
Debtors	2,00,000	1,80,000
Inventories	2,90,000	3,00,000
Prepaid Expenses	15,000	16,000
Accounts Payable	1,02,000	1,16,000

Calculate total cash from operating activities.

Solution: **Cash from Operating Activities**

Particulars	₹	₹
Net Income		1,10,000
Add: Depreciation		44,000
Operating Profit before Working Capital Changes		1,54,000
Add: Decrease in Inventories	10,000	
Decrease in Prepaid Expenses	1,000	11,000
		1,65,000
Less: Increase in Debtors	20,000	
Decrease is Accounts Payable	14,000	34,000
Net Cash Flow from Operating Activities		1,31,000

Illustration 5 (Cash flow from Operation – Indirect Method): From the following, calculate cash from operation by Indirect Method:

Profit and Loss Account for the year ended 31st March, 2014

Particulars	₹	₹	Particulars	₹
To Opening Stock		2,00,000	By Sales	45,00,00
To Purchases		36,40,000	By Closing Stock	2,40,000
To Wages	2,25,000			
Add: Outstanding	25,000	2,50,000		
To Manufacturing Expenses		75,000		
To Gross Profit c/d		5,75,000		
		47,40,000		47,40,00
To Salaries	1,37,500		By Gross Profit b/c	5,75,000
Add: Outstanding	62,500	2,00,000	By Rent Received	37,500
To Insurance	30,000		By Commission Accrued	17,500
Less: Prepaid	7,500	22,500	By Net Loss	55,000
To Office Expenses		1,17,500		
To Selling Expenses		1,45,000		
To Depreciation		1,25,000		
To Share Issue Expenses w/o		75,000		
		6,85,000		**6,85,000**

(T.Y. B.Com., Modified)

Solution: **Calculation of Cash from Operating Activities Indirect Method**

Particulars	₹	₹
Net Loss as per Profit and Loss A/c (before Tax and Extraordinary Item)		(55,000)
Adjustments for Non-cash Charges and Non-operating items		
Add: Depreciation	1,25,000	
Add: Share Issue Expenses w/o	75,000	2,00,000
		1,45,000
Less: Rent Received (Non-operating)		(37,500)
Operating Profit before Working Capital Changes		1,07,500
Adjustment for Current Assets/Liabilities:		
Add: Increase in Current Liabilities:		
Wages O/s	25,000	
Salaries	62,500	87,500
		1,95,000

Less: Increase in Current Assets:		
Stock	40,000	
Prepaid Insurance	7,500	
Accrued Commission	17,500	(65,000)
Net Cash from Operating Activities		1,30,000

Illustration 6: (Cash Flows from Operating Activities): X Ltd. has the following balance on 01.01.2014:

Particulars	₹	₹
Fixed Assets	15,00,000	
Less: Depreciation	(5,00,000)	10,00,000
Bank		87,500
Other Current Assets		6,25,500
Current Liabilities		2,50,000

Next year's estimate are:

(a) The company will acquire fixed assets costing ₹ 2,50,000 after selling one machine for ₹ 70,000, costing ₹ 1,50,000 on which depreciation provided will amount to ₹ 90,000.

(b) The net profits will be ₹ 1,75,000 after providing for a depreciation of ₹ 1,50,000.

(c) Current assets and current liabilities (other than bank balance) at 31.12.2014 are estimated to be ₹ 7,50,000 and ₹ 4,00,000 respectively.

At the end of the accounting year, the company deposits all the cash into the bank. Calculate the cash flows from operations and investing activities for the year 2014. **(T.Y. B.Com, Modified)**

Solution: **Cash Flows from Operating Activities**

Particulars	₹	₹
Net Profit after Depreciation	1,75,000	
Add: Depreciation provided	1,50,000	
Less: Profit on Sale of Machinery	(10,000)	
Operating Profit before Working Capital Changes	3,15,000	
Less: Increase in Assets	(6,25,000)	
Add: Increase in Current Liabilities	1,50,000	
Net Cash from Operating Activities		3,40,000

Cash Flows from Investing Activities

Particulars	₹	₹
Sale of Machine	70,000	
Purchase of Machine	(2,50,000)	
Net Cash Used in Investing Activities		(1,80,000)

Working Note:

Calculation of Profit on Sale of Machinery:

70,000 – (1,50,000 – 90,000) = ₹ 10,000.

Illustration 7: From the following details relating to the Accounts of Grow More Ltd., prepare Cash Flow Statement.

Liabilities	31.03.2014	31.03.2013	Assets	31.03.2014	31.03.2013
Share Capital	10,00,000	8,00,000	Plant and Machinery	7,00,000	5,00,000
Reserve	2,00,000	1,50,000	Land and Building	6,00,000	4,00,000
Profit and Loss Account	1,00,000	60,000	Investments	1,00,000	–
Debentures	2,00,000	–	Sundry Debtors	5,00,000	7,00,000

Provision for Taxation	1,00,000	70,000	Stock	4,00,00	2,00,000
Proposed Dividend	2,00,000	1,00,000	Cash on Hand Bank	2,00,000	2,00,000
Sundry Creditors	7,00,000	8,20,000			
	25,00,00	**20,00,00**		**25,00,000**	**20,00,000**

Additional Information:

(a) Depreciation @ 25% was charged on the opening value of Plant and Machinery.
(b) During the year, one old machine costing 50,000 (WDV 20,000) was sold for ₹ 35,000.
(c) ₹ 50,000 was paid towards income tax during the year.
(d) Building under construction was not subject to any depreciation.

Prepare Cash flow Statement. **(T.Y. B.Com, Modified)**

Solution: **Grow More Ltd.**

Cash Flow Statement for the year ended 31st March, 2014

	Particulars	₹	₹
(A)	**Cash Flow from Operating Activities:**		
	Net Profit before Tax and Extraordinary Item*	3,20,000	
	Adjustment for:		
	Transfer to General Reserve	50,000	
	Depreciation	1,25,000	
	Profit on Sale of Plant and Machinery	(15,000)	
	Operating Profit before Working Capital Changes	**4,80,000**	
	Increase in Stock	(2,00,000)	
	Decrease in Debtors	2,00,000	
	Decrease in Creditors	(1,20,000)	
	Cash generated from Operations	3,60,000	
	Income Tax Paid	(50,000)	
	Net Cash Provided by Operating Activities		3,10,000
(B)	**Cash Flows from Investing Activities**		
	Purchase of Fixed Assets	(3,45,000)	
	Expenses on Building	(2,00,000)	
	Increase in Investments	(1,00,000)	
	Sale of Old Machine	35,000	
	Net Cash Used in Investing Activities		(6,10,000)
(C)	**Cash Flows from Financing Activities**		
	Proceeds from Issue of Shares	2,00,000	
	Proceeds from Issue of Debentures	2,00,000	
	Dividend Paid	(1,00,000)	3,00,000
	Net Cash Provided by Financing Activities		
	Net Increase in Cash and Cash Equivalents (A + B + C)		Nil
	Cash and Cash Equivalents at the Beginning of the Year		2,00,000
	Cash and Cash Equivalents at the End of the Year		2,00,000

Working Notes:

Provision for Taxation Account

Particulars	₹	Particulars	₹
To Bank (Paid)	50,000	By Balance c/d	70,000
To Balance c/d	1,00,000	By Profit and Loss A/c (b/f)	80,000
	1,50,000		**1,50,000**

* ₹ 40,000 + ₹ 2,00,00Q (Provision for Dividend) + ₹ 80,000 (Provision for Tax).

Plant and Machinery Account

Particulars	₹	Particulars	₹
To Balance b/d	5,00,000	By Depreciation	1,25,000
To Bank (Bal. Fig.)	3,45,000	By Bank (Sale)	20,000
		By Balance c/d	7,00,000
	8,45,000		**8,45,000**

Illustration 8 (Loss on Machinery Discarded): Following are the Balance Sheets of Suhani Ltd. as on 31st March, 2013 and 2014:

Liabilities	31.03.2014	31.03.2013	Assets	31.03.2014	31.03.2013
Share Capital	4,00,000	3,00,000	Goodwill	90,000	1,00,000
Reserve	1,00,000	80,000	Plant and Machinery	4,29,250	2,98,000
Profit and Loss Account	50,000	30,000	Investments	60,000	1,00,000
Debentures	1,00,000	1,50,000	Sundry Debtors	1,10,000	1,60,000
Provision for Taxation	40,000	50,000	Stock	80,000	50,000
Proposed Dividend	40,000	30,000	Prepaid Expenses	5,750	4,000
Trade Creditors	70,000	90,000	Cash and Bank Balance	20,000	10,000
			Discount on Debentures	5,000	8,000
	8,00,000	**7,30,000**		**8,00,000**	**7,30,000**

Additional Information:

(a) Depreciation on Plant and Machinery has been charged @ 15%.

(b) A machine costing ₹ 10,000 (W.D.V. ₹ 3,000) has been discarded. An old machine costing ₹ 50,000 (W.D.V. ₹ 1,20,000) has been sold for ₹ 35,000.

(c) A profit of ₹ 10,000 has been earned by sale of investments.

(d) Debentures have been redeemed at 5% premium.

(e) ₹ 45,000 income tax has been paid and adjusted against provision for taxation.

Prepare Statement of changes in Financial Position-cash basis. **(T.Y. B.Com., Modified)**

Solution: **Statement of Changes in Financial Position (Cash Basis) for the year ended 31st March, 2014**

Particulars	₹	₹
(I) Cash Flow from Operating Activities:		
Net Profit before Tax and Extraordinary Item	1,75,000	
Adjustment for Non-cash and Non-operating Items:		
Depreciation	75,750	
Goodwill w/o	10,000	
Loss on Machine Discarded	3,000	
Profit on Sale of Investment	(10,000)	
Profit on Sale of Machine	(15,000)	
Loss (Premium) on Redemption of Debentures	2,500	
Discount on Issue of Debentures	3,000	
Cash Generated from Operation before Tax	1,84,250	
Less: Tax Paid	45,000	
Cash Generated from Operating Activities before Working Capital	1,39,250	
Adjustments for Working Capital		
Decrease in Debtors	50,000	
Increase in Stock	(30,000)	
Increase in Prepaid Expenses	(1,750)	
Decrease in Trade Creditors	(20,000)	

	Net Cash Flow from Operating Activities		1,37,500
(II)	**Cash Flow from Investing Activities:**		
	Sale of Investments	50,000	
	Sale of Machinery	35,000	
	Purchase of Machinery	(2,30,000)	
	Net Cash Used in Investing Activities		(1,45,000)
(III)	**Cash Flow from Financing Activities:**		
	Issue of Shares	1,00,000	
	Redemption of Debentures	(52,500)	
	Payment of Dividend	(30,000)	
	Net Cash Generated from Financing Activities		17,500
	Net Increase in Cash and Cash Equivalents		10,000
	Cash and Cash Equivalents at the Beginning		10,000
	Cash and Cash Equivalents at the End		20,000

Working Notes:

1. Profit and Loss A/c (Adjusted)

Particulars	₹	Particulars	₹
To Provision for Tax	35,000	By Balance b/d	30,000
To General Reserve	20,000	By Net Profit before Tax and Extraordinary Item	1,15,000
To Proposed Dividend	40,000		
To Balance c/d	50,000		
	1,45,000		**1,45,000**

2. Plant and Machinery A/c (Adjusted)

Particulars	₹	Particulars	₹
To Balance b/d	2,98,000	By Depreciation*	75,750
To Profit on Sale (trfd. to P & L A/c)	15,000	By Bank (Sale)	35,000
To Bank (Purchased) (Bal. Fig.)	2,30,000	By Loss on Sale (trfd. to P & L A/c)	3,000
		By Balance c/d	4,29,250
	5,43,000		**5,43,000**

	Particulars	**₹**
	*W.D.V. as on 1.4.2004	2,98,000
Less:	W.D.V. of Machine sold (20,000 + 3,000)	23,000
		2,75,000
	*Depreciation @ 15%	41,250
	W.D.V. after Depreciation	2,33,750
	Cost of Machinery acquired	2,30,000**
	*Depreciation on Machinery Purchased	34,500
	W.D.V.	1,95,500
	Thus, total Depreciation charged ₹ (41,250 + 34,500) =	75,750
	₹ (4,29,250 – 2,33,750) $\left(1{,}95{,}500 \times \frac{100}{85}\right)$	₹ 2,30,000

Provision for Taxation Accounts

Particulars	₹	Particulars	₹
To Bank	45,000	By Balance b/d	50,000
To Balance c/d	40,000	By Profit and Loss A/c (Bal. Fig.)	35,000
	85,000		**85,000**

Illustration 9 (Cash Flow Statement Indirect Indirect Method): Presented below is the comparative Balance sheets for Jyoti Ltd. as at 31st March:

Particulars	2014 ₹	2013 ₹
Cash	40,000	57,000
Accounts Receivable	77,000	64,000
Inventory	1,32,000	1,40,000
Prepaid Expenses	12,140	16,540
Land	1,25,000	1,50,000
Equipment	2,00,000	1,75,000
Accumulated Depreciation – Equipment	(60,000)	(42,0000
Building	2,50,000	2,50,000
Accumulated Depreciation – Building	(75,000)	(50,000)
	7,01,140	**7,60,540**
Account Payable	33,000	45,000
Bounds Payable	2,35,000	2,65,00
Equity Share Capital (₹ 10 per share)	2,80,000	2,50,000
Retained Earnings	1,53,140	2,00,540
	7,01,140	**7,60,540**

Additional information:

(a) Operating expenses include depreciation expense of ₹ 70,000 and amortisation of prepaid expenses of ₹ 4,400.
(b) Land was sold for cash at book value.
(c) Cash dividends of ₹ 74,290 were paid.
(d) Net income for 2006 was ₹ 26,890.
(e) Equipment was purchased for ₹ 65,000 cash. In addition equipment costing ₹ 40,000 with a book value of ₹ 13,000 was sold for ₹ 15,000 cash.
(f) Bonds were redeemed at face value by issuing 3,000 Equity Shares of ₹ 10 at par.

Instructions: Prepare a Statement of Cash Flows for 2014 using the indirect method [AS-3 (Revised)].

(T.Y. B.Com., Modified)

Solution: Jyoti Ltd. Cash Flows Statement for the year ended 31st December, 2014 [AS-3 (Revised)] (Indirect Method)

Particulars	₹	₹
(A) Cash Flows from Operating Activities		
Net Income	26,890	
Adjustments for:		
Depreciation	70,000	
Amortisation of Prepaid Expenses	4,400	
Gain on Sale of Equipment	(2,000)	
Operating Profit before Working Capital Changes	99,290	
Increase in Accounts Receivable	(13,000)	

	Decrease in Inventories	8,000	
	Decrease in Accounts Payable	(12,000)	
	Net Cash from Operating Activities		82,290
(B)	**Cash Flows from Investing Activities**		
	Sale of Land	25,000	
	Sale of Equipment	15,000	
	Purchase of Equipment	(65,000)	
	Net Cash Used in Investing Activities		(25,000)
(C)	**Cash Flows from Financing Activities**		
	Dividends Paid	(74,290)	
	Net Cash Used in Financing Activities		(74,290)
	Net Decrease in Cash and Cash Equivalents (A + B + C)		(17,000)
	Cash and Cash Equivalents at the Beginning of the Period		57,000
	Cash and Cash Equivalents at the End of the Period		40,000

Significant Non-cash Transaction

Redemption of Bonds in exchange for Equity Share Capital ₹ 30,000

Working Notes:

Equity Share Capital Account

Particulars	₹	Particulars	₹
To Balance c/d	2,80,000	By Balance b/d	2,50,000
		By Bonds Payable Accounts	30,000
	2,80,000		**2,80,000**

Bonds Payable Account

Particulars	₹	Particulars	₹
To Equity Share Capital Account	2,35,000	By Balance b/d	2,65,000
To Balance c/d	30,000		
	2,65,000		**2,65,000**

Illustration 10: Following are the summarised Balance Sheets of M/S. Sanghi Bros. Ltd.

Balance Sheets

Liabilities	31-3-2010 ₹	31-3-2010 ₹	Assets	31-3-2010 ₹	31-3-2010 ₹
Equity Share Capital	1,00,000	1,00,000	Cash on Hand	22,000	8,000
General Reserve	30,000	30,000	Cash at Bank	23,000	37,000
Profit and Loss A/c	45,000	33,000	Sundry Debtors	33,000	22,000
12% Debentures	45,000	35,000	Marketable Investments	55,000	38,000
(F.V. ` 100 each)			Stock in Trade	41,000	52,000
Current Liabilities	55,000	54,000	Land and Buildings	75,000	60,000
	–	–	Plant and Machinery	26,000	35,000
Total	2,75,000	2,52,000	Total	2,75,000	2,52,000

Additional Information:

(a) Interim Dividend @ 10% was paid during the year 2010-11.

(b) New machinery for ₹ 15,000 was purchased and an old machine costing ₹ 6,000 (accumulated depreciation ₹ 3,000) was sold at book value.

(c) Debentures were redeemed by purchasing from open market @ ₹ 90 per debenture and profit credited to Profit and Loss A/c.

You are required to prepare Cash flow Statement for the year ended 31st March, 2011 in accordance with the AS-3 using indirect method.

Solution: **Profit and Loss A/c**

Particulars	₹	Particulars	₹
To Depreciation (Building)	15,000	By Balance b/d	45,000
To Depreciation (Machinery)	3,000	By Debentures A/c	1,000
To Interim Dividend	10,000	By Fund from Operation (Cash Profit)	15,000
To Balance c/d	33,000		–
	61,000		61,000

Debentures A/c

Particulars	₹	Particulars	₹
To Own Debentures	9,000	By Balance b/d	45,000
To Profit and Loss A/c	1,000		
To Balance c/d	35,000		–
	45,000		45,000

Plant and Machinery A/c

Particulars	₹	Particulars	₹
To Balance b/d	26,000	By Bank	3,000
To Bank A/c	15,000	By Depreciation	3,000
	–	By Balance c/d	35,000
	41,000		41,000

Cash Flow Statement for the year ended 31-3-2011

Sr. No.	Particulars	₹	₹
A.	**Cash Flow from Operating Activities**		
	Cash Profit	15,000	
	Add: Decrease in Debtors	11,000	
		26,000	
	Less: Increase in Stock	(11,000)	
	Decrease in Current Liabilities	(1,000)	
	Net Cash Flow from Operating Activities		14,000
B.	**Cash Flow from Investing Activities**		
	Sale of Investment	17,000	
	Purchase of Machinery	(15,000)	
	Purchase of Own Debentures	(9,000)	
	Sale of Machinery	3,000	
	Net Cash Used in Investing Activities		(4,000)
C.	**Cash Flow from Financing Activities**		
	Payment of Interim Dividend		(10,000)
	Net Cash Used in Financing Activities		(10,000)
	Add: Cash and Bank 31.2010		45,000
	Cash and Bank 31.3.2011		45,000

Illustration 11: Following are the Balance Sheets of Palghar Industries Ltd.

Liabilities	As on 31-3-2009 ₹	As on 31-3-2010 ₹	Assets	As on 31-3-2009 ₹	As on 31-3-2010 ₹
Equity Share Capital	5,00,000	10,00,000	Fixed Assets	8,50,000	9,50,000
Profit & Loss A/c	1,70,000	4,65,000	Investments	3,00,000	3,00,000
10% Debentures	5,00,000	–	Advance to Suppliers	1,33,000	36,000

Bank Overdraft	1,00,000	75,000	Stock	5,00,000	4,71,000
Sundry Creditors	9,80,000	6,50,000	Sundry Debtors	7,12,000	6,82,000
Provision for Depreciation	2,50,000	2,90,000	Advance Income-tax	80,000	1,60,000
Proposed Dividend	1,00,000	2,00,000	Prepaid Expenses	50,000	60,000
Provision for Taxation	70,000	1,60,000	Cash Balance	25,000	1,75,000
Unpaid Dividend	–	10,000	Preliminary Expenses	20,000	16,000
	26,70,000	28,50,000		26,70,000	28,50,000

Additional Information:

(a) On 1-4-2009, 10% Convertible Debentures were converted into Equity Shares.

(b) During the year 2009-10, a fixed assets having original cost of ₹ 50,000/- which was fully depreciated, was sold off for ₹ 10,000/-

(c) Investment costing ₹ 1,00,000/- was sold for ₹ 90,000/- and new investment was made during the year 2009-10.

(d) Proposed dividend for 2008-09 was paid on 5-4-2009, but a dividend warrant of ₹ 10,000/- was returned unpaid.

(e) Income-tax for 2008-09 was assessed at ₹ 70,000/- on 25-12-2009 and refund of income-tax of ₹ 10,000/- was received on 10-1-2010.

Prepare Cash Flow Statement for the year ended 31st March, 2010 by indirect method as per AS-3 from the above information.

Solution: **Palghar Industries Ltd.**

Cash Flow Statement for the year ended 31.03.2010

	Particulars		**₹**	**₹**
I.	**Cash Flow from Operating Activities**			
	Net Profit for the Year as per Profit and Loss A/c (4,65,000 – 1,70,000)			2,95,000
	Add/Less: **Non-cash and Non-operating Adjustments**			
	Profit on Sale of Fixed Assets		– 10,000	
	Depreciation for the Year		90,000	
	Loss on Sale of Investment		10,000	
	Preliminary Expenses Written off		4,000	
	Proposed Dividend		2,00,000	
	Provision for Tax		1,60,000	
		(a)	7,49,000	
	Add/Less: **Adjustment for Working Capital Changes**			
	Decrease in Advance to Suppliers		97,000	
	Decrease in Stock		29,000	
	Decrease in Sundry Debtors		30,000	
	Increase in Prepaid Expenses		–10,000	
	Decrease in Sundry Creditors		–3,30,000	
		(b)	– 1,84,000	
	Add: Income-tax Refund (2008-09)		10,000	
	Less: Income Tax Paid (2009-10)		1,60,000	
		(c)	– 1,50,000	
	Net Cash Flows from Operating Activities (a + b + c)			4,15,000
II.	**Cash Flows from Investing Activities**			
	Sale of Fixed Assets		10,000	
	Purchase of Fixed Assets		–1,50,000	
	Sale of Investment		90,000	
	Purchase of Investment		–1,00,000	
	Net Cash Used in Investing Activities			– 1,50,000

III. Cash Flows from Financing Activities		
Equity Dividend Paid (2008-09)	– 90,000	
Net Cash Used in Financing Activities		– 90,000
Net Increase in Cash and Cash Equivalents		1,75,000
Add: Opening Balance of Cash and Cash Equivalents		– 75,000
Closing Balance of Cash and Cash Equivalents		1,00,000

Dr. **Fixed Assets A/c** **Cr.**

Particulars	₹	Particulars	₹
To Balance b/d	8,50,000	By Depreciation	50,000
To P & L A/c	10,000	By Bank	10,000
To Bank	1,50,000	By Balance c/d	9,50,000
	10,10,000		10,10,000

Dr. **Provision for Tax A/c** **Cr.**

Particulars	₹	Particulars	₹
To Advance	80,000	By Balance b/d	70,000
To Balance c/d	1,60,000	By Bank	10,000
	–	By P & L A/c	1,60,000
	2,40,000		2,40,000

Dr. **Provision for Depreciation A/c** **Cr.**

Particulars	₹	Particulars	₹
To Fixed Assets	50,000	By Balance b/d	2,50,000
To Balance c/d	2,90,000	By P & L A/c	90,000
	3,40,000		3,40,000

Dr. **Advance Income Tax A/c** **Cr.**

Particulars	₹	Particulars	₹
To Balance b/d	80,000	By Provision	80,000
To Bank	1,60,000	By Balance c/d	1,60,000
	2,40,000		2,40,000

Illustration 12: Following is the Balance Sheet of Wada Enterprises Ltd.:

Liabilities	As on 31-3-09 ₹	As on 31-3-10 ₹	Assets	As on 31-3-09 ₹	As on 31-3-10 ₹
Equity Share Capital	6,00,000	8,00,000	Fixed Assets	7,40,000	8,30,000
10% Preference Share Capital	4,00,000	5,00,000	Investments	2,00,000	1,50,000
Securities Premium	–	20,000	Stock	5,80,000	5,60,000
Profit and Loss A/c	2,50,000	4,50,000	Sundry Debtors	7,60,000	6,60,000
Sundry Creditors	7,50,000	2,30,000	Advance Income Tax	1,20,000	50,000
Provision for Depreciation	3,20,000	4,50,000	Bank Balance	1,25,000	3,75,000
Proposed Equity Dividend	1,80,000	2,40,000	Cash Balance	75,000	1,25,000
Provision for Taxation	1,00,000	60,000		–	–
	26,00,000	27,50,000		26,00,000	27,50,000

Additional Information:

(a) On 1-4-2009, 10% Preference Shares of ₹ 1,00,000 were issued for cash.

(b) Equity Shares of ₹ 2,00,000 were issued at a premium of 10% on 1-1-2010.

(c) During the year 2009-10, a fixed asset having original cost of ₹ 1,10,000 was sold at a profit of ₹ 10,000. Depreciation for the year was ₹ 2,30,000.

(d) Investment costing ₹ 50,000 was sold for ₹ 90,000 during the year 2009-10.

(e) Proposed Equity Dividend for 2008-09 was paid on 7-4-2009. Company pays Preference dividend on 31st March every year.

(f) Income tax for 2008-09 was assessed at ₹ 1,00,000 on 31-12-2009 and refund of income-tax of 20,000 was received on 15-1-2010.

Prepare Cash Flow Statement for the year ended 31st March, 2010 by Indirect Method as per AS-3 from the above information.

Solution:

Wada Enterprises Ltd.

Cash Flow Statement for the year ended 31st March, 2010

Particulars	₹	₹	₹
1. Cash Flow from Operating Activities			
A. Net Profit			
Closing Balance	4,50,000		
Less: Opening Balance	(2,50,000)	2,00,000	
B. Adjust Non-cash items/Non-operating Items			
Profit on Sale of Fixed Assets	(10,000)		
Depreciation for the Year	2,30,000		
Profit on Sale of Investment [90,000 – 50,000]	(40,000)		
Preference Dividend	50,000		
Proposed Equity Dividend [Current Year]	2,40,000		
Provision for Tax [Current Year]	60,000	5,30,000	
Operating Profit before Working Capital Changes		7,30,000	
C. Adjust Working Capital Changes (Except Cash/Bank)			
Add: Decrease in Working Capital			
– Decrease in Stock [5,80,000 – 5,60,000]	20,000		
– Decrease in Debtors [7,60,000 – 6,60,000]	1,00,000		
– Decrease in Creditors [7,50,000 – 2,30,000]	(5,20,000)	(4,00,000)	
		3,30,000	
D. Income Tax Refund		20,000	
E. Income Taxes Paid		(50,000)	
Net Cash from Operating Activities			3,00,000
2. Cash Flow from Investing Activities			
Sale of Fixed Assets		20,000	
Purchase of Fixed Assets [WN]		(2,00,000)	
Sale of Investment		90,000	
Net Cash Used in Investing Activities			(90,000)
3. Cash Flow from Financing Activities			
Issue of Equity Shares at Premium		2,20,000	
Issue of Preference Shares		1,00,000	
Preference Dividend		(50,000)	
Equity Dividend		(1,80,000)	
Net Cash from Financing Activities			90,000
4. Net Decrease in Cash [1 + 2 + 3]			3,00,000
5. Cash and Cash Equivalents at Beginning of Period			2,00,000
6. Cash and Cash Equivalents at End of Period			5,00,000

Working Note:

1. Dr. Fixed Assets Account Cr.

Particulars	₹	Particulars	₹
To Balance b/d	7,40,000	By Depreciation (On sold)	1,00,000
To Profit and Loss A/c	10,000	By Bank	20,000
To Bank (Purchase/Bal. Fig.)	2,00,000	By Balance c/d	8,30,000
	9,50,000		9,50,000

2. Dr. Provision for Depreciation Account Cr.

Particulars	₹	Particulars	₹
To Fixed Assets (On sold)	1,00,000	By Balance b/d	3,20,000
To Balance c/d	4,50,000	By Profit and Loss A/c	2,30,000
	5,50,000		5,50,000

3. Dr. Advance Income-tax Account Cr.

Particulars	₹	Particulars	₹
To Balance b/d	1,20,000	By Provision for Tax	1,20,000
To Bank	50,000	By Balance c/d	50,000
	1,70,000		1,70,000

4. Dr. Provision for Tax Account Cr.

Particulars	₹	Particulars	₹
To Advance Tax	1,20,000	By Balance b/d	1,00,000
To Balance c/d	60,000	By Bank (Refund)	20,000
	–	By Profit and Loss A/c	60,000
	1,80,000		1,80,000

Illustration 13: Following are the Balance Sheets of Saket Industries Ltd.:

Liabilities	As on 31-03-09 ₹	As on 31-03-10 ₹	Assets	As on 31-03-09 ₹	As on 31-03-10 ₹
Equity Share Capital	4,00,000	8,00,000	Fixed Assets	8,77,000	8,98,000
10% Preference			Investments	2,60,000	6,00,000
Share Capital	4,00,000	5,00,000	Stock	5,00,000	4,40,000
Capital Redemption Reserve	4,00,000	–	Sundry Debtors	7,00,000	7,60,000
Profit and Loss A/c	–	80,000	M.V.A.T. Refund Due	33,000	36,000
Bank Overdraft	1,00,000	50,000	Advance Income Tax	1,20,000	2,00,000
Sundry Creditors	12,00,000	13,40,000	Cash and Bank Balances	50,000	1,00,000
Proposed Equity Dividend	40,000	80,000	Profit and Loss A/c	80,000	–
Provision for Taxation	1,20,000	2,16,000	Share Issue Expenses	40,000	32,000
	26,60,000	30,66,000		26,60,000	30,66,000

Additional Information:

(a) Bonus Equity Shares were issued to the existing Equity shareholders in the proportion of 1 : 1, out of Capital Redemption Reserve on 1-04-2009.

(b) Additional Preference Shares were issued on 31-03-2010. Company pays preference dividend on 31st March every year.

(c) Fixed Assets were sold for ₹ 66,000 on which loss on sale was ₹ 34,000.

(d) Fixed Assets costing ₹ 4,00,000 were purchased during the year.

(e) Income-tax for 2008-09 was assessed at ₹ 1,20,000 on 31-12-2009.

Prepare Cash Flow Statement for the year ended 31st March, 2010 by indirect method as per AS-3 from the above information.

Solution: **Cash Flow Statement for the year ended 31.03.2009**

Particulars	₹	₹
I. Cash Flows from Operating Activities		
Net Profit for the Year as per Profit and Loss A/c (80,000 – (– 80,000))	1,60,000	
***Add/Less*: Non-cash and Non-operating Adjustment**		
Loss on Sale of Fixed Assets	34,000	
Depreciation for the Year	2,79,000	
Share Issue Expenses Written off	8,000	
Preference Dividend Paid (2008-09)	40,000	
Proposed Equity Dividend	80,000	
Provision for Tax	2,16,000	
	8,17,000	
***Add/Less*: Adjustment for Working Capital Changes**		
Increase in VAT Refund Due	3,000	
Decrease in Stock	60,000	
Increase in Sundry Debtors	–60,000	
Increase in Sundry Creditors	1,40,000	
	9,54,000	
Less: Income-tax Paid (2008-09)	–2,00,000	
Cash Flows from Operating Activities		7,54,000
II. Cash Flows from Investing Activities		
Sale of Fixed Assets	66,000	
Purchase of Fixed Assets	–4,00,000	
Purchase of Investment	–3,40,000	
Cash Used in Investing Activities		–6,74,000
III. Cash Flows from Financing Activities		
Issue of 10% Preference Share Capital	1,00,000	
Preference Dividend Paid (2008-09)	–40,000	
Equity Dividend Paid (2007-08)	–40,000	
Cash Flows from Financing Activities		20,000
Net Increase in Cash and Cash Equivalents		1,00,000
Add: Opening Balance of Cash and Cash Equivalents		–50,000
Closing Balance of Cash and Cash Equivalents		50,000

Illustration 14: Following are the Balance-sheets of Abhishek Products Ltd.:

Liabilities	31st March 2009 ₹	31st March 2010 ₹	Assets	31st March 2009 ₹	31st March 2010 ₹
Equity Share Capital	10,00,000	12,00,000	Fixed Assets	11,00,000	13,00,000
10% Preference Share Capital	5,00,000	3,00,000	Investments	2,60,000	2,60,000
Capital Redemption Reserve	–	2,00,000	Stock	7,40,000	8,99,000
Profit and Loss A/c	57,000	1,00,000	Sundry Debtors	10,50,000	9,90,000
Sundry Creditors	13,73,000	12,50,000	Bills Receivable	1,50,000	2,10,000
Proposed Equity Dividend	1,50,000	1,80,000	Bank Balance	1,00,000	80,000
Provision for Taxation	1,70,000	2,10,000	Cash in Hand	30,000	20,000
Provision for Depreciation	2,00,000	3,35,000	Preliminary Expenses	20,000	16,000
	34,50,000	37,75,000		34,50,000	37,75,000

Additional Information:

(a) Preference Shares were redeemed on 1-4-2009. Company pays preference dividend on 31st March every year.

(b) Fixed Assets of ₹ 2,00,000/- were purchased on 31-03-2010 against which equity shares of 2,00,000/- were issued at par.

(c) Dividend received on investment was ₹ 26,000/-

(d) Proposed Equity Divided for 2008-09 ₹ 1,50,000/- was paid during 2009-10.

(e) Provision for Taxation for 2008-09 ₹ 1,70,000/- was paid during 2009-10.

Prepare Cash Flow Statement for the year ended 31st March, 2010 by indirect method as per AS-3 from the above information.

Solution: **Abhishek Products Ltd.**

Cash Flow Statement for the year ended 31.03.2010

Particulars	₹	₹
I. Cash Flows from Operating Activities		
Net Profit for the Year as per Profit and Loss A/c (1,00,000 – 57,000))	43,000	
***Add/Less*: Non-cash and Non-operating Adjustment**		
Transfer to Capital Redemption Reserve	2,00,000	
Depreciation for the Year	1,35,000	
Preliminary Expenses Written off	4,000	
Dividend Received	–26,000	
Preference Dividend Paid (2009-10)	30,000	
Proposed Equity Dividend	1,80,000	
Provision for Tax	2,10,000	
	7,76,000	
***Add/Less*: Adjustment for Working Capital Changes**		
Increase in Stock	–1,59,000	
Decrease in Sundry Debtors	60,000	
Increase in Bills Receivable	–60,000	
Decrease in Sundry Creditors	–1,23,000	
	4,94,000	
Less: Income-tax Paid (2008-09)	–1,70,000	
Cash Flows from Operating Activities		3,24,000
II. Cash Flows from Investing Activities		
Dividend Received (2009-10)	26,000	
Cash Used in Investing Activities		26,000
III. Cash Flows from Financing Activities		
Redemption of 10% Preference Share Capital	–2,00,000	
Preference Dividend Paid (2009-10)	–30,000	
Equity Dividend Paid (2008-09)	–1,50,000	
Cash Flows from Financing Activities		3,80,000
Net Decrease in Cash and Cash Equivalents		–30,000
Add: Opening Balance of Cash and Cash Equivalents (1,00,000 + 30,000)		1,30,000
Closing Balance of Cash and Cash Equivalents (80,000 + 20,000)		1,00,000

Illustration 15: Following is the Balance Sheet of Raju Ltd. as at 30th September, 2008:

Liabilities	₹	Assets	₹
Share Capital	50,000	Building	3,00,000
Loan from Bank	2,00,000	Stock	40,000
Unsecured Loan	3,00,000	Debtors	2,00,000
Sundry Creditors	50,000	Bank	60,000
	6,00,000		**6,00,000**

Due to recession in world market and internal financial fraud in company, it was decided to close down business by selling all assets and satisfying all liabilities at book value and balance to be utilised for repayment of capital.

Prepare Cash Flow Statement after closure of the business by using indirect method as per AS-3.

Solution: Cash Flow Statement for the year ending 30th September, 2008

Particulars	₹	₹
I. Cash Flows from Operating Activities		
Decrease in Stock	40,000	
Decrease in Debtors	2,00,000	
Decrease in Creditors	–50,000	
Net Cash Flow from Operating Activities		1,90,000
II. Cash Flows from Investing Activities		
Sale of Buildings	3,00,000	
Net Cash Flow from Investing Activities		3,00,000
III. Cash Flows from Financing Activities		
Repayment of Secured Loan	–2,00,000	
Repayment of Unsecured Loan	– ,00,000	
Refund of Share Capital	–50,000	
Net Cash Used in Financing Activities		–5,50,000
Net Decrease in Cash and Cash Equivalents		–60,000
Add: Cash and Cash Equivalents at the beginning of the year		60,000
Cash and Cash Equivalents at the end of the year		Nil

Illustration 16: Following are Balance Sheets of Z Ltd. as on 31st March, 2007 and 31st March, 2008

Balance Sheet

Liabilities	31-03-2008 ₹	31-03-2008 ₹	Assets	31-03-2007 ₹	31-03-2008 ₹
Share Capital	10,00,000	10,00,000	Land and Building	10,00,000	9,50,000
General Reserves	3,00,000	3,00,000	Plant and Machinery	8,00,000	7,00,000
Profit & Loss Account	1,52,000	1,00,000	Sundry Debtors	3,08,000	5,14,000
Bank Loan	3,00,000	3,50,000	Equipments	80,000	70,000
Provision for Tax	1,00,000	1,00,000	Stock	1,40,000	2,00,000
Proposed Dividend	50,000	40,000	Cash	20,000	6,000
Sundry Creditors	4,60,000	5,50,000	Goodwill	14,000	–
Total	23,62,000	24,40,000	**Total**	23,62,000	24,40,000

Other Information:

(a) Dividend of ₹ 50,000 was paid during the year ended 31st March, 2008.

(b) Depreciation was provided on land and building, plant and machinery and equipments for the year ended 31st March, 2008.

(c) Machinery of ₹ 50,000 and equipment of ₹ 20,000 were acquired during the year ended 31st March, 2008.

(d) Income Tax provision was made for the year ended 31st March, 2008 of ₹ 1,30,000.

Prepare Cash Flow Statement by Indirect Method as per AS-3 for the year ended 31st March, 2008.

Solution: Cash Flow Statement for the year ended 31st March, 2008

Particulars	₹	₹
I. Cash Flows from Operating Activities		
Profit & Loss A/c (1,00,000 – 1,52,000)	–52,000	
Add: Dividend	2,00,000	

Provision for Tax	1,30,000	
Goodwill Written off	14,000	
Depreciation	2,30,000	
	3,62,000	
Add: Increase in Creditors	90,000	
	4,52,000	
Less: Increase in Debtors	2,06,000	
Increase in Stock	60,000	
	1,86,000	
Less: Income Tax Paid	1,30,000	
Net Cash Flows from Operating Activities		56,000
II. Cash Flows from Investing Activities		
Purchase of Machinery	50,000	
Purchase of Equipments	20,000	
Net Cash Flows from Investing Activities		(70,000)
III. Cash Flows from Financing Activities		
Payment of Dividend	– 50,000	
Loan Taken	50,000	
Net Cash Flow from Financing Activities		Nil
Net Decrease in Cash and Cash Equivalents		–14,000
Opening Cash Balance		20,000
Closing Cash Balance		6,000

Working:

Land & Building A/c

Particulars	₹	Particulars	₹
To Balance b/d	10,00,000	By Depreciation	50,000
	–	By Balance c/d	9,50,000
	10,00,000		10,00,000

Plant & Machinery A/c

Particulars	₹	Particulars	₹
To Balance b/d	8,00,000	By Depreciation	1,50,000
To Bank	50,000	By Balance c/d	7,00,000
	8,50,000		8,50,000

Equipment A/c

Particulars	₹	Particulars	₹
To Balance b/d	80,000	By Depreciation	30,000
To Bank	20,000	By Balance c/d	70,000
	1,00,000		1,00,000

Provision for Tax A/c

Particulars	₹	Particulars	₹
To Bank	1,30,000	By Balance c/d	1,00,000
To Balance b/d	1,00,000	By P & L A/c	1,30,000
	2,30,000		2,30,000

Provision for Dividend A/c

Particulars	₹	Particulars	₹
To Bank	50,000	By Balance c/d	50,000
To Balance b/d	40,000	By P & L A/c	40,000
	90,000		90,000

Illustration 17: From the following Balance Sheets of Z Ltd., prepare a Cash Flow Statement as per AS-3 for the year ended 31st December, 09 by indirect method.

Liabilities	2008 ₹	2009 ₹	Assets	2007 ₹	2008 ₹
Equity Share Capital	2,00,000	2,50,000	Fixed Assets	3,02,500	2,85,000
10% Preference Share Capital	1,00,000	–	Debtors	60,000	70,000
5% Debentures			Stock	1,00,000	90,000
(Issued on 1-7-2009)	–	50,000	Bank	45,000	30,000
Capital Redemption Reserve	–	50,000	Preliminary Expenses	30,000	20,000
Profit & Loss A/c	1,25,000	30,000			
Creditors	75,500	70,000			
Bills Payable	37,500	45,000			
Total	5,37,500	4,95,000	**Total**	5,37,500	4,95,000

Addition Information:

(a) Preference shares were redeemed at 10% premium on 1-7-2009 with half-yearly dividend.

(b) Fixed assets were purchased for ₹ 97,500 on 1-10-2009.

(c) Dividend of ₹ 20,000 on equity shares was paid.

(d) Fixed Assets having original cost of ₹ 1,00,000 on which accumulated depreciation was ₹ 30,000 was sold on 30-9-2009 at ₹ 40,000.

Solution: Cash Flow Statement of Z Ltd. for the year ended 31st December, 2009

Particulars	₹	₹	₹
A. Cash Flows from Operating Activities			
Net Profit for the Year			
Closing Balance	30,000		
Less: Opening Balance	(1,25,000)	(95,000)	
Adjust Non-cash/Non-operating Items			
Depreciation	45,000		
Preliminary Expenses	10,000		
Premium on Preference Shares	10,000		
Capital Redemption Reserve	50,000		
Dividend on Preference Shares	5,000		
Loss on Sale of Fixed Assets	30,000		
Dividend on Equity Shares	20,000		
Interest on Debentures	1,250	1,71,250	
Operating Profit before Working Capital Changes		76,250	
Adjust Working Capital Changes (Except Cash/Bank)			
Decrease in Stock	10,000		
Increase in Bills Payable	7,500		
Increase in Debtors	(10,000)		
Decrease in Creditors	(5,000)	2,500	
Net Cash Used for Operations			78,750
B. Cash Flows from Investing Activities			
Sale of Fixed Assets	40,000		

Purchase of Fixed Assets	(97,500)		
Net Cash Flow from Investing Activities			(57,500)
C. Cash Flows from Financing Activities			
Issue of Equity shares	50,000		
Issue of 5% Debentures	50,000		
Redemption of Preference Shares (including Premium)	(1,10,000)		
Interest Paid on Debentures	(1,250)		
Dividend of Preference Shares Paid	(5,000)		
Dividend on Equity Shares Paid	(20,000)		
Net Cash Flow from Financing Activities			(36,250)
Net Decrease in Cash (A + B + C)			(15,000)
Add: Cash at Beginning of the Period			45,000
Cash at End of the Year			30,000

Fixed Assets A/c

Particulars	₹	Particulars	₹
To Balance b/d	3,02,500	By Bank (Sold)	40,000
To Bank (Purchases)	97,500	By Profit & Loss A/c (Loss)	30,000
		By Depreciation A/c	45,000
		By Balance c/d	2,85,000
	4,00,000		4,00,000

Illustration 18: The Mismanagement Ltd. always finds that it is hard pressed for funds. Inspite of borrowing funds at a high rate from banks, they are not able to make payments to suppliers in time. The financial position of the company as reflected from the Balance Sheet for the last two yeas is as under:

Liabilities	2008		2009	
	₹ lakhs	₹ lakhs	₹ lakhs	₹ lakhs
Share Capital (₹ 10 each fully paid)	10.00		10.00	
Profit & Loss A/c	1.65		0.45	
		11.65		10.45
Bank Overdraft		1.55		5.95
Sundry Creditors		1.00		6.00
		14.20		22.40
Land and Buildings		3.00		5.00
Plant and Machinery	5.00		6.00	
Less: Depreciation	1.20	3.80	1.80	4.20
Motor Cars	1.00		1.30	
Less: Depreciation	0.40	0.60	0.60	0.70
Stock		2.20		7.20
Debtors		4.60		5.30
		14.20		22.40

The following further information is available:

(a) Dividend was paid in 2009 at the rate of 10%.

(b) The company sold a motor can during 2009 for ₹ 8,000. This was purchased for ₹ 10,000 and its written down value in the books on 1-1-2009 was ₹ 5,000.

Prepare cash flow statement as per AS-3 by indirect method.

Solution: **Cash Flow Statement for the year ended 2009**

Particulars	₹	₹	₹
A. Cash Flows from Operating Activities			
Net Profit (45,000 – 1,65,000)		(1,20,000)	

Adjust Non-cash Items:			
Depreciation (Plant)	60,000		
Depreciation (Vehicles) [Note 3]	25,000	85,000	
Less: Profit on Sale of Vehicles [Note 2]	(3,000)		
Add: Dividends	1,00,000	97,000	
Operating Profit before Working Capital Changes		62,000	
Adjust Working Capital Changes (Except Cash/Bank):			
Add: Decrease in Working Capital			
Increase in Current Liabilities (Creditors)	5,00,000		
Less: Increase in Working Capital			
Increase in Current Assets (Debtors)	(70,000)		
Increase in Current Assets (Stock)	(5,00,000)	(70,000)	
Net Cash Used for Operations			(8,000)
B. Cash Flow from Investing Activities			
Sale of Vehicle		8,000	
Purchase of Machinery		(1,00,000)	
Purchase of Building		(2,00,000)	
Purchase of Vehicle [Note 1]		(40,000)	
Net Cash Used for Investing Activities			(3,32,000)
C. Cash Flow from Financing Activities			
Dividend Paid (10% on 10 lakhs)			(1,00,000)
Net Decrease in Cash (A + B+ C)			(4,40,000)
Cash at Beginning of the Period – Bank Overdraft			(1,55,000)
Cash at End of the Period – Bank Overdraft			(5,95,000)

Working Notes:

1. Dr. Motor Car A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	1,00,000	By Sale of Motor Car A/c (Cost)	10,000
To Bank Purchase (Bal. Fig.)	40,000	By Balance c/d	1,30,000
	1,40,000		1,40,000

2. Dr. Sale of Motor Car A/c Cr.

Particulars	₹	Particulars	₹
To Motor Car A/c	10,000	By Bank	8,000
To Profit & Loss A/c (Bal. Fig)	3,000	By Depreciation	5,000
	13,000		13,000

3. Dr. Provision for Depreciation on Motor Car A/c Cr.

Particulars	₹	Particulars	₹
To Sale of Motor Car A/c (Dept.)	5,000	By Balance b/d	40,000
To Balance c/d	60,000	By Depreciation (Bal. Fig.)	25,000
	65,000		65,000

Illustration 19: The Balance Sheet of Dinesh Ltd. are as follows:

Balance Sheet as at 31st March, 2008 and 2009

Liabilities	2008 ₹	2009 ₹	Assets	2008 ₹	2009 ₹
Equity Share Capital	3,00,0000	5,00,000	Good will	1,10,000	90,000
General Reserve	–	60,000	Land & Building	1,60,000	1,80,000

Profit & Loss A/c	–	58,000	Plant & Machinery	80,000	2,00,000
Debentures	2,00,000	–	Stock	84,000	1,06,000
Sundry Creditors	1,14,000	92,000	Debtors	1,80,000	1,56,000
Bills Payable	60,000	12,000	Advance Income Tax	–	40,000
Provision for Income Tax	–	50,000	Bills Receivables	16,000	24,000
Proposed Dividend	–	40,000	Prepaid Expenses	12,000	8,000
			Cash in Hand	20,000	8,000
			Profit & Loss A/c	12,000	–
	6,74,000	8,12,000		6,74,000	8,12,000

Additional Information:

(a) During the year ended 31-3-200, Depreciation of ₹ 16,000 and ₹ 20,000 have been charged on Land and Building and Plant and Machinery respectively.

(b) An Interim Dividend of ₹ 15,000 was paid during the year ended 31-3-2009.

(c) During the year, Machinery having book value of ₹ 16,000 was sold for ₹ 14,000.

Prepare Cash Flow Statements by Indirect Method for the year ended 31st March, 2009 as per AS-3.

Solution: **Cash Flow Statement for the year ended 31st March 2009**

Particulars	₹	₹	₹
A. Cash Flows from Operating Activities			
Net Profit as per Profit & Loss A/c (58,000 – (–12,000)		70,000	
Adjust Non-cash Items:			
Depreciation on Land and Building	16,000		
Depreciation on Plant and Machinery	20,000		
Goodwill written off	20,000		
Transfer to General Reserve	60,000		
Provision for Tax	50,000		
Interim Dividend Paid	15,000		
Loss on Sale of Machinery	2,000		
Proposed Dividend	40,000	2,23,000	2,93,000
Operating Profit before Working Capital Changes			
Adjust Working Capital Changes (Except Cash/Bank):			
Add: Decrease in Working Capital			
Decrease in Debtors	24,000		
Decrease in Prepaid Expenses	4,000		
Less: Increase in Working Capital			
Increase in Stock	(22,000)		
Increase in Bills Receivable	(8,000)		
Decrease in Creditors	(22,000)		
Decrease in Bill Payable	(48,000)	(72,000)	
Cash from Operation		2,21,000	
Income Tax Paid		(40,000)	
Net Cash Flows from Operating Activities			1,81,,000
B. Cash Flow from Investing Activities			
Sale of Machinery		14,000	
Land & Building Purchased [W.N. 1]		(36,000)	
Plant & Machinery Purchased [W.N. 2]		(1,56,000)	
Net Cash Used for Investing Activities			(1,78,000)
C. Cash Flow from Financing Activities			
Issue of Shares		2,00,000	
Interim Dividend Paid		(15,000)	

Debentures Redeemed		(2,00,000)	
Net Cash Flow from Financing Activities			(15,000)
Net Decrease in Cash (A + B + C)			(12,000)
Add: Cash at Beginning of the Period			20,000
Cash at the End of the Period			8,000

Working Note:

1. Dr. Land & Building A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	1,60,000	By Depreciation	16,000
To Cash/Bank (Bal. Fig.)	36,000	By Balance c/d	1,80,000
	1,96,000		1,96,000

2. Dr. Plant & Machinery A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	80,000	By Depreciation	20,000
To Cash/Bank (Bal. Fig.)	36,000	By Machine Sold	16,000
	2,36,000		2,36,000

3. Machinery Sold

WDV	16,000	=	Credit Machinery A/c
Less: Sold for	(14,000)	=	Add in Investing Activities
Loss	2,000	=	Add in Non-operating Items

Illustration 20: Following are summarised Balance Sheets of BDM Ltd. as on 31st December, 2008 and 2009.

Balance Sheet

Liabilities	2008	2009	Assets	2008	2009
Equity Share Capital	2,00,000	2,50,000	Bank	35,000	16,000
12% Debentures	1,00,000	80,000	Stock	40,000	75,000
10% Preference Share Capital	50,000	80,000	Debtors	90,000	1,50,000
Bank Loan	70,000	1,10,000	Machinery	75,000	60,000
Reserves	20,000	25,000	Furniture	10,000	8,000
Profit & Loss A/c	50,000	60,000	Land	1,70,000	2,80,000
Creditors	60,000	75,000	Buildings	1,40,000	99,000
Bills Payable	40,000	33,000	Goodwill	30,000	25,000
	5,90,000	7,13,000		5,90,000	7,13,000

Additional Information:

(a) Depreciation charged during 2009 was ₹ 4,000 on Furniture, ₹ 12,000 on Machinery and ₹ 20,000 on Building.

(b) Part of Machinery was sold dor ₹ 15,000 at a loss of ₹ 4,000.

(c) During 2009, interim dividend was paid ₹ 10,000 and Income Tax was paid ₹ 5,000.

(d) During the yea,r part of the Building was sold at book-value.

You are required to prepare Cash Flow Statement as per AS-3 (Use Indirect Method).

Solution: **BDM Ltd.**

Cash Flow Statement for the year ended 31st December 2009

Particulars	₹	₹	₹
A. Cash Flows from Operating Activities			
Net Profit for the Year	10,000		
Adjust Non-cash Items:			
Depreciation on Machinery	12,000		
Depreciation of Furniture	4,000		
Depreciation on Building	20,000		
Loss on Sale of Machinery	4,000		
Transfer to Reserve	5,000		
Income Tax Provision	5,000		
Goodwill Written off (30,000 – 25,000)	5,000		
Interim Dividend	10,000		
Operating Profit before Working Capital Changes		75,000	
Adjust Working Capital Changes (Except Cash/Bank):			
Add: Decrease in Working Capital			
Increase in Creditors (75,000 – 60,000)	15,000		
Less: Increase in Working Capital			
Decrease in Bills Payable (40,000 – 33,000)	(7,000)		
Increase in Stock (75,000 – 40,000)	(35,000)		
Increase in Debtors (1,50,000 – 90,000)	(60,000)	(87,000)	
Cash Lost in Operations		(12,000)	
Income Tax Paid		(5,000)	
Net Cash Flow Lost in Operating Activities			(17,000)
B. Cash Flow from Investing Activities			
Sale of Machinery (Given)		15,000	
Sale of Building [W.N. 3]		21,000	
Purchase of Machinery [W.N. 1]		(16,000)	
Purchase of Furniture [W.N. 2]		(2,000)	
Purchase of Land (2,80,000 – 1,70,000)		(1,10,000)	
Net Cash Flow Used in Investing Activities			(92,000)
C. Cash Flow from Financing Activities			
Issue of Equity Shares (2,50,000 – 2,00,000)		50,000	
Issue of Preference Shares (80,000 – 50,000)		30,000	
Bank Loan Taken (1,10,000 – 70,000)		40,000	
Redemption of Debentures (1,00,000 – 70,000)		(20,000)	
Interim Dividend Paid (Given)		(10,000)	
Net Cash Flow from Financial Activities			90,000
Net Decrease in Cash & Cash Equivalent (A + B + C)			(19,000)
Cash and Cash Equivalent at the Beginning (Bank)			35,000
Cash and Cash Equivalent at End (Bank)			16,000

Working Note:

1. Dr. **Machinery A/c** **Cr.**

Particulars	₹	Particulars	₹
To Balance b/d	75,000	By Depreciation	12,000
To Bank (Bal. Fig.)	16,000	By Bank (Sold)	15,000
		By Profit & Loss A/c (Loss on Sale)	4,000

		By Balance c/d	60,000
	91,000		91,000

2. Dr. Furniture A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	10,000	By Depreciation	4,000
To Bank (Bal. Fig.)	2,000	By Balance c/d	8,000
	12,000		12,000

3. Dr. Building A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	1,40,000	By Depreciation	20,000
		By Bank (Bal. Fig.)	21,000
		By Balance c/d	99,000
	1,40,000		1,40,000

Illustration 21: You are required to prepare Cash Flow Statement as per AS-3 for the year ended 31st December, 2008 from the following Balance Sheet as on 31st December and additional information of M/s Rajeshree Co. Ltd.

Balance Sheet

Liabilities	2007 (₹)	2008 (₹)	Assets	2007 (₹)	2008 (₹)
Equity Share Capital	2,00,000	5,00,000	Fixed Assets	6,45,000	5,81,000
Preference Share Capital	3,00,000	–	Investment (Long Term)	60,000	80,000
Securities Premium	50,000	80,000	Stock	1,00,000	1,50,000
General Reserve	60,000	1,10,000	Debtors	1,40,000	1,50,000
Profit & Loss A/c	70,000	1,00,000	Bills Receivable	50,000	75,000
10% Debentures	2,00,000	–	Prepaid Expenses	10,000	9,000
12% Debentures	–	1,00,000	Cash	5,000	7,000
Creditors	50,000	75,000	Bank	15,000	23,000
Bills Payable	40,000	30,000	Preliminary Expenses	10,000	–
Proposed Dividend	30,000	50,000			
Provision for Tax	35,000	30,000			
	10,35,000	10,75,000		10,35,000	10,75,000

Additional Information:

(a) Machinery worth ₹ 40,000 sold for ₹ 45,000.

(b) Furniture purchased during the year amounted to ₹ 65,000.

(c) 10% Debentures were given option of conversion into 12% Debentures or redemption in cash accordingly half of the debenture holders exercised option in favour of new 12% debentures and rest redeemed in cash.

(d) Preference Shares redeemed at 10% premium. The Premium on redemption has been debited to Securities Premium account. New Equity Shares were issued at premium.

(e) Provision for tax made for the year ₹ 40,000.

(f) Interim dividend paid during the year ₹ 25,000. Proposed Dividend for the year 2007 had been paid during the year, 2008.

Solution: Cash Flow Statement for the Year Ended 31st December 2008

Particulars	₹	₹
A. Cash Flow from Operating Activities		
Net Profit as per Balance Sheet (1,00,000 – 70,000)		30,000
Adjust Non-cash and Non-operating Items:		

	General Reserve (1,10,000 – 60,000)	50,000	
	Proposed Dividend (For Current Year)	50,000	
	Provision for Tax (Given)	40,000	
	Depreciation on Fixed Assets [W.N. 4]	89,000	
	Preliminary Expenses Written off	10,000	
	Interim Dividend Paid (Given)	25,000	
	Profit on Sale of Machinery [W.N. 4]	(5,000)	2,59,000
	Net Operating Profit before Working Capital Changes		2,89,000
	Adjust Working Capital Changes:		
	Increase in Creditors (75,000 – 50,000)	25,000	
	Decrease in Bills Payable (40,000 – 30,000)	(10,000)	
	Increase in Stock (1,50,000 – 1,40,000)	(50,000)	
	Increase in Debtors (1,50,000 – 1,40,000)	(10,000)	
	Increase in Bills Receivable (75,000 – 50,000)	(25,000)	
	Decrease in Prepaid Expenses (10,000 – 9,000)	1,000	(69,000)
	Cash Generated from Operation		2,20,000
	Less: Income Tax Paid [W.N. 3]		45,000
	Net Cash Flow from Investing Activities		1,75,000
B.	**Cash Flow from Investing Activities**		
	Purchase of Furniture (Given)	(65,000)	
	Purchase of Investment (80,000 – 60,000)	(20,000)	
	Sale of Machinery (Given)	45,000	
	Net Cash Flow from Investing Activities		(40,000)
C.	**Cash Flow Financing Activities**		
	Issue of Equity Shares (5,00,000 – 2,00,000)	3,00,000	
	Security Premium Received (WN 2)	60,000	
	Redemption of Preference Shares	(3,00,000)	
	Premium Paid on Redemption (10%)	(30,000)	
	Debenture Redemption in Cash	(1,00,000)	
	Proposed Dividend Paid for Last Year	(30,000)	
	Interim Dividend Paid	(25,000)	
	Net Cash Flow from Financing Activities		(1,25,000)
	Net Increase in Cash and Cash Equivalent (A + B + C)		10,000
	Cash and Cash Equivalent at the Beginning of Period	5,000	
	Cash	15,000	20,000
	Bank		
	Cash and Cash Equivalent at the End of Period	7,000	
	Cash	23,000	–
	Bank	30,000	

Working Notes:

1. Dr. 10% Debenture A/c Cr.

Particulars	₹	Particulars	₹
To Bank A/c (1/2)	1,00,000	By Balance b/d	2,00,000
To 12% Debentures (1/2)	1,00,000		
	2,00,000		2,00,000

2. Dr. Securities Premium A/c Cr.

Particulars	₹	Particulars	₹
To Bank (Premium on Preference Shares)	30,000	By Balance b/d	50,000
To Balance c/d	80,000	By Bank (Bal. Fig.)	60,000
	1,10,000		1,10,000

3. Dr. Provision for Tax A/c Cr.

Particulars	₹	Particulars	₹
To Bank A/c (Bal Fig.)	45,000	By Balance b/d	35,000
To Balance c/d	80,000	By Profit & Loss	40,000
	75,000		75,000

Illustration 22: Mr. Akhil Dutt has supplied the following Balance Sheet as at 30th June, 2008 and 2009.

Liabilities	2009 (₹)	2008 (₹)	Assets	2009 (₹)	2008 (₹)
Akhil's Capital	1,75,000	1,00,000	Fixed Assets	79,000	50,000
General Reserve	37,500	25,000	Stock	1,12,500	75,000
Loan from 'X'	1,00,000	75,000	Debtors	1,25,000	1,00,000
Bank Loan	12,500	25,000	Cash and Bank	11,000	21,000
Creditors	40,000	30,000	Deferred Advertising	12,500	14,000
Outstanding Expenses	12,500	20,000	Loan to 'K'	37,500	15,000
	3,77,500	2,75,000		3,77,500	2,75,000

Following further information is available:

(a) During the year ended 30th June 2009, Mr. Akhil earned Net Profit of ₹ 85,00 after writing off depreciation ₹ 9,000 but before transfer to general reserve.

(b) Akhil was drawing ₹ 4,000 per month from his business for personal use.

(c) Fixed assets of book value of ₹ 8,000 were sold at a profit of ₹ 2,000.

(d) Interest on loans paid to 'X' ₹ 15,000 and interest on loan received from 'K' ₹ 4,500.

You are required to prepare cash flow statement by indirect method as per AS-3, for the year ended 30th June, 2009.

Solution: **M/s Akhil Dutt**

Cash Flow Statement for the year ended 30th June, 2009

Particulars	₹	₹
Profit before Tax from Operating Activities		1,07,500
Add: Adjustment in Respect of Depreciation		9,000
Net Cash Flow from Operating Activities before Working Capital Adjustment		1,16,500
Working Capital Adjustments		
Increase of Creditors (40,000 – 30,000)	10,000	
Decrease of Outstanding Expenses (20,000 – 12,500)	(7,500)	
Increase of Stock (1,12,500 – 75,000)	(37,500)	
Increase in Debtors (1,25,000 – 1,00,000)	(25,000)	(60,000)
Net Cash Flow from Operating Activities before Tax		56,000
Less: Tax Paid		–
Net Cash Flow from Operating Activities		56,500
Cash Flows from Investing Activities		
Sale of Fixed Assets	10,000	
Purchase of Fixed Assets	(46,000)	
Loan to K	(22,500)	
Interest Received from K on Loan	4,500	(54,000)
Cash Flows from Financing Activities		
Capital Introduced	38,000	
Drawing (Capital Withdrawn)	(48,000)	
Repayment of Bank Loan	(12,000)	
Loan from X	25,000	
Interest on Loan Paid	(15,000)	(12,500)

Net Decrease in Cash or Cash Equivalents		(10,000)
Add: Opening Balance of Cash or Cash Equivalents		21,000
Closing Balance of Cash or Cash Equivalents		11,000

Working Notes:

Dr. General Reserve A/c Cr.

Particulars	₹	Particulars	₹
To Balance c/d	37,500	By Balance b/d	25,000
		By Profit and Loss A/c (Bal. Fig.)	12,500
	37,500		37,500

Dr. Bank Loan A/c Cr.

Particulars	₹	Particulars	₹
To Cash/Bank (Balancing Fig.)	12,500	By Balance b/d	25,000
To Balance c/d	12,500		
	25,000		25,000

Dr. Fixed Assets A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	50,000	By Cash A/c	10,000
To Profit and Loss A/c	2,000	By Depreciation A/c	9,000
To Cash/Bank A/c	46,000	By Balance c/d	79,000
	98,000		98,000

Dr. Akhil's Capital A/c Cr.

Particulars	₹	Particulars	₹
To Cash A/c	48,000	By Balance b/d	1,00,000
To Balance c/d	1,75,000	By Profit and Loss A/c	85,000
		By Cash /Bank A/c (Bal. Fig.)	38,000
	2,23,000		2,23,000

Dr. Deferred Revenue A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	14,000	By Profit & Loss A/c (Bal. Fig.)	1,500
		By Balance c/d	12,500
	14,000		14,000

Dr. X's Loan A/c Cr.

Particulars	₹	Particulars	₹
To Balance c/d	1,00,000	By Balance b/d	75,500
		By Cash/Bank A/c (Bal. Fig.)	25,000
	1,00,000		1,00,000

Dr. Loan to K A/c Cr.

Particulars	₹	Particulars	₹
To Balance b/d	15,000	By Balance c/d	37,500
To Cash/Bank A/c	22,500		
	37,500		37,500

Statement of Profit

Particulars	₹	₹
Profit Transferred transferred to General Reserve A/c		1,500
Depreciation Written off		85,000
Add: Deferred Advertising		12,500
		99,000
Less: Profit on Sale of Assets	2000	
Interest Received from K	4,500	6,500
		92,500
Add: Interest Paid on X's Loan		15,000
Profit before Tax from Operating Activities		1,07,500

Illustration 23: From the following information, you are required to prepare a cash flow statement of Shalini Enterprises for the year ended 31st December, 2008.

Balance Sheet

Liabilities	2007 (₹)	2008 (₹)	Assets	2007 (₹)	2008 (₹)
Anil Mahajan's Capital			Plant & Machinery	50,000	1,11,500
Opening Balance	70,000	1,00,000	Inventory	15,000	40,000
Additions during the year	25,000	15,000	Debtors	38,000	84,000
Profit of the year	40,000	2,05,000	Cash	20,000	7,000
	1,35,000	3,20,000	Prepaid Expenses	2,000	4,000
Less: Withdrawals	35,000	70,000	Factory Premises	–	1,00,000
Closing Balance	1,00,000	2,50,000			
Secured Loans	–	40,000			
Creditors	14,000	39,000			
Tax Payable	1,000	3,000			
Provision for Depreciation	10,000	14,000			
	1,25,000	3,46,000		1,25,000	3,46,000

Profit & Loss A/c for the year ending 31st December 2008

Particulars	₹	Particulars	₹
To Opening Inventory	15,000	By Sale	12,50,000
To Purchases	9,30,000	By Closing Inventory	40,000
To Gross Profit c/d	3,45,000		
	12,90,000		12,90,000
To General Expenses	1,10,000	By Gross Profit b/d	3,45,000
To Depreciation	8,000	By Profit on sale of asset (W.D.V. ₹ 5,000)	3,000
To Taxes	25,000	(Original Cost ₹ 9,000)	
To Net Profit c/d	2,05,000		
	3,48,000		3,48,000

Additional Information:

(a) A scooter was taken from Ms. Ketki (a customer) at ₹ 50,000 in settlement of her dues was not recorded.

(b) Provide depreciation @ 10% on factory premises and @ 20% on scooter which was not provided.

Solution: **Cash Flow Statement for the year ended 31st December, 2008**

Particulars	(₹)	(₹)	(₹)
A. Cash Flow from Operating Activities			
Net Profit (Profit & Loss A/c) as per Balance Sheet at the end of the year [W.N. 1]		1,85,000	

Adjust Non-cash/Non-operating Items:			
Depreciation on Plant		8,000	
Depreciation on Factory		10,000	
Depreciation on Scooter [W.N. 1]		10,000	
Provision for Tax		25,000	
Profit on Sale of Plant/Equipment		(3,000)	
Net Operating Profit before Working Capital Changes		2,35,000	
Adjust Working Capital Changes:			
Increase in Stock (40,000 – 15,000)		(25,000)	
Decrease in Debtors [38,000 – (84,000 – 50,000)]		(4,000)	
Increase in Prepaid Expenses (4,000 – 2,000)		(2,000)	
Increase in Creditors (39,000 – 14,000)		25,000	
Cash from Operations		2,37,000	
Net Taxes Paid		(23,000)	
Net Cash Flow from Operating Activities			2,14,000
B. Cash Flow from Investing Activities			
Sale of Plant		8,000	
Purchase of Scooter		(50,000)	
Purchase of Land/Building		(1,00,000)	
Purchase of Plant/Equipments		(70,000)	
Net Cash Flow from Investing Activities			(2,12,000)
C. Cash Flow from Financing Activities			
Additional Capital		15,000	
Received from Fresh Loans		40,000	
Drawings		(70,000)	
Net Cash Used in Financing Activities			(15,000)
Net Decrease in Cash (A + B + C)			(13,000)
Cash at Beginning of the Period			20,000
Cash at the End of the Period			7,000

Working Notes:

1.

		(₹)
Net Profit		2,05,000
Less: Depreciation:		
Scooter	10,000	
Factory	10,000	20,000
Net Profit after Depreciation		1,85,000

2. Depreciation on Scooter

Dr. **Scooter A/c** **Cr.**

Particulars	₹	Particulars	₹
To Debtors	50,000	By Depreciation	10,000
		By Balance c/d	40,000
	50,000		50,000

3. Purchase on Plant

Dr. **Plant A/c** **Cr.**

Particulars	₹	Particulars	₹
To Balance b/d	50,000	By Sale	9,000
To Bank	70,000	By Balance c/d	1,11,000
	1,20,000		1,20,000

4. Payment of Taxes:

Dr. **Provision for Taxation A/c** **Cr.**

Particulars	₹	Particulars	₹
To Bank	23,000	By Balance b/d	1,000
To Balance c/d	3,000	By P & L A/c	25,000
	26,000		26,000

Illustration 24: Y2K Industries Ltd. had the following summarised financial statements for the year ended 31.12.2008.

Balance Sheet

Liabilities	(₹)	Assets	(₹)
Equity Share Capital of ₹ 10 each	2,00,000	Fixed Assets at Cost	5,00,000
General Reserve	75,000	*Less:* Provision for Depreciation	1,75,000
8% Debentures	1,25,000		3,25,000
Profit & Loss A/c	17,500	Stock in Trade	95,000
Creditors	1,00,000	Debtors	80,000
Outstanding Liabilities	17,500	Bank Balance	20,000
		Preliminary Expenses	15,000
	5,35,000		5,35,000

Profit & Loss A/c

Particulars	(₹)	Particulars	(₹)
To Material Consumed	4,00,000	By Fixed Assets at Cost	10,,00,000
To Labour Charges	1,60,000	By Profit on Sale of Investments	7,500
To Manufacturing Cost	2,20,000		
To Other Overheads	1,15,000		
To Depreciation	45,000		
To Interest	10,000		
To Preliminary Expenses written off	2,500		
To Net Profit	55,000		
	10,07,500		10,07,500

Profit & Loss Appropriation A/c

Particulars	(₹)	Particulars	(₹)
To Transfer to General Reserve	15,000	By Balance b/d	10,000
To Dividend Paid	32,000	By Net Profit	55,000
To Balance	17,500		
	65,000		65,000

The position on 1.1.2008 in respect of certain items is as under:

8% Debentures	Nil
Creditors	1,00,000
Outstanding Liabilities	7,500
Stock in Trade	75,000

Debtors	1,00,000
Fixed Assets at Cost	4,00,000
Investments	30,000

From the information given above you are required to prepare Cash Flow Statement.

Solution: **Cash Flow Statement for the year ended 31.12.2008 as per AS-3**

Particulars	(₹)	(₹)	(₹)
A. Cash Flow from Operating Activities			
Net Profit (Profit & Loss A/c) as per Balance Sheet at the end of the year		55,000	
Adjust Non-cash/Non-operating Items:			
Depreciation	45,000		
Amortisation	2,500	46,500	
Profit on Sale of Investment		(7,500)	
Interest		10,000	
Net Operating Profit before Working Capital Changes		1,05,000	
Adjust Working Capital Changes:			
Increase in Stock	(20,000)		
Decrease in Debtors	20,000		
Increase in Outstanding Expenses	10,000	10,000	
Net Cash Flow from Operating Activities			1,15,000
Net Cash Flow from Operating Activities			2,14,000
B. Cash Flow from Investing Activities			
Sale of Investments		37,500	
Purchase of Fixed Assets		(1,00,000)	
Net Cash Flow from Investing Activities			(62,500)
C. Cash Flow from Financing Activities			
Issue of Debentures		1,25,000	
Interest Paid		(10,000)	
Dividend Paid		(32,500)	
Net Cash Used in Financing Activities			82,500
Net Decrease in Cash (A + B + C)			1,35,000
Cash at Beginning of the Period			(1,15,000)
Cash at the End of the Period			20,000

SIGNIFICANCE OF CASH FLOW STATEMENT

Cash flow statement is important for a number of reasons.

1. First, by focusing on cash flows, it explains the nature of the financial events which have affected the cash position. This statement explains the reason for the difference between opening and closing cash balance.
2. The statement is important for financial planning purposes. For example, budgeted cash statements are a crucial element in the process of budget plans. These surpluses and shortfalls are expressed sequentially over the planning period and require management to deal with the forecasted cash surplus or deficit, the former involving a short-term investment of surplus cash, the latter a short-term borrowing arrangement.
3. This statement bring into sharp focus the enterprise’s earning capacity with its spending and operating activity. Accounting principles restrict the income statement to matching periodic revenues with the cost of earning those revenues. Statement of changes in cash is not restricted in this way; hence, it provides an extended view of the financial inflows and outflows by including both capital and revenue flows.

4. Cash flow statement provides an insight into the critical areas of financial management by identifying two important classes of cash flows, namely, operating cash flows and financing cash flows. This distinction draws attention to the net cash flows from operations and the net financing cash flows. The net operating cash flows classify the capability of the firm to support dividend payments to shareholders. It is these net cash flows which are of critical importance to investors and shareholders in predicting the amount of cash likely to be distributed in the future in the from of liquidation distributions or repayment of principal and in the evaluation of risk.
5. The significance of cash flow statement lies in the increased complexity of business activity. This complexity results in a greater disparity between the time when income and expense items are reported and the time when the related cash flows occur. It may also result in a greater variability of cash flows.

ICAI's AS-3 Cash Flow Statement contains the following explanations on the utility of cash flow statement:

1. Information about the cash flows of an enterprise is useful in providing users of financial statements with a basis to assess the ability of the enterprise to generate cash and cash equivalents and the needs of the enterprise to utilise those cash flows. The economic decisions that are taken by users require an evaluation of the ability of an enterprise to generate cash and cash equivalents and the timing and certainty of their generation.
2. Users of an enterprise's financial statements are interested in how the enterprise generates and uses cash and cash equivalents. This is the case regardless of the nature of the enterprise's activities and irrespective of whether cash can be viewed as the product of the enterprise, as may be the case with a financial enterprise. Enterprises need cash for essentially the same reasons, however different their principal revenue-producing activities might be. They need cash to conduct their operations, to pay their obligations, and to provide returns to their investors.
3. A cash flow statement, when used in conjunction with the other financial statements, provides information that enables users to evaluate the changes in net assets of an enterprise, its financial structure (including its liquidity and solvency) and its ability to affect the amounts and timing of cash flows in order to adapt to changing circumstances and opportunities. Cash flow information is useful in assessing the ability of the enterprise to generate cash and cash equivalents and enables users to develop models to assess and compare the present value of the future cash flows of different enterprise. It also enhances the comparability of the reporting of operating performance by different enterprises because it eliminates the effects of using different accounting treatments for the same transactions and events.
4. Historical cash flow information is often used as an indicator of the amount, timing and certainty of future cash flows. It is also useful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and the impact of changing prices.

LIMITATIONS OF CASH FLOW STATEMENT

Cash flow can be more precisely measured than can other concepts of funds because the valuation problem of cash are not as great as for other financial resources. However, movement of cash may be easily influenced. For example, payment of liabilities, may be temporarily delayed or marketable securities may be sold, increasing cash flow for a given period. This statement, since it does not cover non-cash items, is not useful in analysing changes in financial position of an enterprise. Cash and changes in cash are not adequate to measure change in financial position. For instance, an enterprise may possess very satisfactory financial (cash) position during a particular month. But if the firm has to pay creditors next month, or make payments for the plant purchased in the near future, the cash position of the firm will be adversely affected. In this way, statement of changes in financial position measured through cash only has drawbacks and does not indicate accurately the changes in financial position. The statement has utility for making short-term financial planning but for long-term planning this statement would not be useful. Because of the limited usefulness of statement of changes in cash, the preparation of statement of changes in working capital (popularly known as funds flow statement) has been suggested.

Exercise

1. Why is cash flow statement a useful statement?
2. Identify the three major types of activities classified on a cash flow statement and give examples of cash inflows and cash outflows in each classification.
3. What limitations of funds flow statement are overcome by a cash flow statement?
4. What are the purposes of cash flow statement?
5. Discuss the procedures in preparing a cash flow statement.
6. What are the two methods of determining cash flows from operations? Generally, which of these methods is preferable?
7. "A cash flow statement is required to explain changes in cash account balances between balance sheet dates." Explain this statement.
8. List the common sources and uses of cash in each activity area: operating, investing and financing.
9. Discuss the guidelines as contained in AS-3 on Cash Flow Statement.
10. Discuss the main features of AS-3. What changes have been made in this standard?
11. Distinguish between cash and cash equivalent.
12. Distinguish between cash flow from operating, investing and financing activities. Provide examples of each type of activity as per AS-3. Show a proforma statement of cash flows.
13. Discuss the Direct Method and Indirect Method of preparing Cash Flow Statement.

Answer in One Sentence

1. What is cash flow?
2. What is cash inflow?
3. What is cash outflow?
4. What is cash and cash equivalent?
5. What is cash flow from operating activities?
6. What is cash flow from financing activities?
7. What is cash flow from investing activities?
8. How does interest on loan affect cash flow?
9. How does payment of dividend affect cash flow?
10. What is the treatment for interim dividend in cash flow?
11. How does change in working capital affect cash flow?

Fill in the Blanks

1. Cash flow statement is prepared as per as ________.
2. Cash flow is classified in to (1)_____, (2)______ and (3) ______categories.
3. Cash receipt from sale of goods is cash flow from _______ .
4. Payment to employees is a cash flow from ________.
5. Cash received from sale of machine is a cash flow from _______.
6. Purchase of building is a cash flow from _________.
7. Redemption of preference shares is a cash flow from ________.
8. Interest on loan paid is a cash flow from ________ .
9. Cash flow from operating activities is calculated by _______ and _______.
10. Decreases in debtors increases cash flow from ________.
11. Decreases in creditors decreases cash flow from ________.
12. Goodwill written off is added to Net Profit to get cash flow from _______.

13. Purchases and sales of fixed assets is ascertained from ________.
14. Cash flow statement is governed by AS-_______.
15. Depreciation is ________ cost.

Ans.: 1. 3; 2. operating, inventory and financing; 3. operating activities; 4. operating activities, 5. investing activities; 6. investing activities; **7**. financing activities; 8. financing activities; 9. financing activities; 10. direct method and indirect method; 11. operating activities; 12. operating activities; 13. Fixed Assets A/c; 14. 3; 15. non-cash.

State Whether the Following Statements are True or False

1. Cash from business operations can be determined from income statement.
2. Sources of cash should always be more than uses of cash in the cash flow statement.
3. Sources of cash must be equal to be uses of cash.
4. Cash flow statement is mandatory for all the firms.
5. Cash flow statement is prepared as per AS-3.
6. In cash flow statement, cash balance at the beginning and at the end of the year are shown separately.
7. Change in current assets is adjusted in cash flow from operation.
8. Redemption of debenture creates a cash flow from financing activities.
9. Redemption of pref. shares creates cash flow from financing activities.
10. Income tax paid is adjusted in cash flow from operating activities.
11. Refund of public deposits is an application of cash.
12. Cash flows are inflows and outflows of cash from investing activities.
13. Cash deposited into bank increases cash inflow.
14. Collection from debtors increases cash from operating activities.
15. Change in unclaimed dividend affects cash flow from financing activities.
16. Issue of bonus shares affect cash flow from financing activities.
17. Declaration of final dividend has no effect on cash flow .
18. Underwriting commission paid during the year create cash flow.
19. Decreases in debenture indicates cash used in financing activities.
20. Decreases in preliminary expenses shows written off during the year. it should be added back to profit to arrive at cash from operating activities.
21. Increases in securities premium creates cash inflow from financing activities.
22. Proposed dividend for the year previous year shows cash used in operating activities.
23. Buyback of equity shares creates cash outflow from financing activities.
24. Trading commission received creates cash inflow from operating activities.

Ans.: **True:** 6 , 7 , 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 23, 24
False: 1, 2, 3, 4, 5, 16, 22

Multiple Choice Questions

1. Cash flow statement provides information that
   (a) Supplements the P & L A/c and balance sheet (b) Is independent of financial statements
   (c) Provides basis for financial statements (d) Of a cash budget
2. Cash received from sale of machinery is treated as cash inflow from
   (a) Operating activities (b) Financing activities
   (c) Investing activities (d) Extra – ordinary activities
3. Unrealised gains and loses arising in foreign exchange are
   (a) Cash flow from financing activities (b) Cash flow from investing activities
   (c) Not treated as cash flows (d) None of these

4. One of the following is considered as cash transaction.
   (a) Conversion of debentures into equity shares (b) Calls bonus
   (c) Issue of shares for purchases of machinery debentures (d) Purchase of machinery by issue of
5. Securities premium collected amounts to cash flow from
   (a) Operating activities (b) Investing activities
   (c) Financing activities (d) None of these
6. Redemption of debenture is a cash flow from
   (a) Operating activities (b) Investing activities
   (c) Financing activities (d) None of these
7. Decreases in current liabilities
   (a) Decreases flow from operating activities (b) Increases cash flow from operating activities
   (c) Increases cash flow from financing activities (d) None of the above
8. Interest received is a cash flow from
   (a) Operating activities (b) Investing activities
   (c) Financing activities (d) None of these
9. Repayment of leases liabilities is cash flow from
   (a) Operating activities (b) Investing activities
   (c) Financing activities (d) None of these
10. Loans to subsidiaries is a cash flow from
    (a) Operating activities (b) Investing activities
    (c) Financing activities (d) None of these
11. For cash flow statement cash equivalent includes
    (a) Bank deposit for 2 days (b) Money market instruments
    (c) Treasury bills (d) All of the these
12. Acquisition of a sub-subsidiary is
    (a) Investing activity (b) Financing activity
    (c) Operating activity (d) None of the above
13. Collection from debtors is
    (a) Financing activity (b) Investing activity
    (c) Operating activity (d) None of these
14. Brokerage paid on issue of shares is
    (a) Investing activity (b) Financing activity
    (c) Operating activity (d) None of these
15. Dividend received on shares held is
    (a) Investing activity (b) Financing activity
    (c) Operating activity (d) None of these
16. Sale of fixed assets is a
    (a) Investing activity (b) Financing activity
    (c) Operating activity (d) None of these
17. Payment of underwriting commission is
    (a) Operating activity (b) Investing activity
    (c) Financing activity (d) None of the above

18. Issue of shares against conversion of debentures increases cash flow from
    (a) Investing activity (b) Financing activity
    (c) Operating activity (d) None of these

Ans.: 1. (a), 2. (c), 3. (c), 4. (b), 5. (c), 6. (c), 7. (a), 8. (c), 9. (c), 10. (b), 11. (d), 12. (a), 13. (c), 14. (b), 15. (a), 16. (a), 17. (c), 18. (d)

Practical Problems

1. From the following Balance Sheet of Twenty First Century Ltd. and additional information, prepare a Cash Flow Statement as per AS-3 (Revised):

Liabilities	31.03.13 ₹	31.03.14 ₹	Assets	31.03.13 ₹	31.03.14 ₹
Equity Share Capital	12,00,000	15,00,000	Building	8,00,000	7,60,000
General Reserve	3,00,000	3,50,000	Machinery	5,00,000	7,20,000
Profit and Loss A/c	1,00,000	1,50,000	Short-term Investments	3,00,000	4,50,000
9% Debentures	6,00,000	4,00,000	Inventories	4,00,000	4,70,000
Creditors	4,90,000	5,60,000	Debtors	6,70,000	5,30,000
Proposed Dividends	1,20,000	1,80,000	Cash at Bank	2,20,000	3,30,000
Provision for Taxation	1,00,000	1,30,000	Prepaid Expenses	20,000	10,000
	29,10,000	**32,70,000**		**29,10,000**	**32,70,000**

Additional Information:

(a) Debentures were redeemed at a premium of 10% on 1st April, 2014.

(b) Income tax paid during the year amounted to ₹ 1,40,000.

(c) A Machine which appeared at a W.D.V. of ₹ 80,000 was sold for ₹ 1,30,000 and a new machine costing ₹ 3,60,000 was acquired during the year. **(T.Y. B.Com., Modified)**

Ans.: Net cash flow operation activities: ₹ 5,66,000; Net cash used in investing activities ₹ (3,80,000); Net increase in cash and cash equivalents ₹ 1,10,000.

2. Telestar Ltd. gives you the following Balance Sheets for the year ended 31st March, 2013 and 2014. Prepare a Cash Flow Statement for the year ended 31st March, 2014 as per AS-3 by indirect method.

Liabilities	31.3.13 ₹	31.3.14 ₹	Assets	31.3.13 ₹	31.3.14 ₹
Equity Share Capital	1,20,000	1,20,000	Land	2,10,000	2,70,000
5% Preference Share Capital	90,000	60,000	Building	2,85,000	2,70,000
General Reserve	30,000	42,330	Stock	27,000	36,300
Profit and Loss Account	15,240	28,080	Debtors	40,440	38,460
Provision for Tax	17,000	8,000	Prepaid Expenses	25,880	17,000
Creditors	3,37,920	3,81,990	Bank Balance	15,840	3,240
			Misc. Expenditure	6,000	5,400
Total	**6,10,160**	**6,40,400**	**Total**	**10,1600**	**6,40,400**

Other information for the year ended 31st March, 2014:

(a) The company has paid Interim dividend of 5% on Equity shares.

(b) Preference shares were redeemed during the year at 10% premium.

(c) Income tax paid during the year ₹ 15,000. **(T.Y. B.Com., Modified)**

3. Following are Balance Sheets of Z Ltd. as on 31st March, 2013 and 31st March, 2014.

Balance Sheets

Liabilities	31.3.2013 ₹	31.3.2014 ₹	Assets	31.3.2013 ₹	31.3.2014 ₹
Share Capital	10,00,000	10,00,000	Land and Building	10,00,000	9,50,000
General Reserves	3,00,000	3,00,000	Plant and Machinery	8,00,000	7,00,000
Profit and Loss Account	1,52,000	1,00,000	Sundry Debtors	3,08,000	5,14,000
Bank Loan	3,00,000	3,50,000	Equipments	80,000	70,000
Provision for Tax	1,00,000	1,00,000	Stock	1,40,000	2,00,000
Proposed Dividend	50,000	40,000	Cash	20,000	6,000
Sundry Creditors	4,60,000	5,50,000	Goodwill	14,000	–
Total	**23,62,000**	**24,40,000**	**Total**	**23,62,000**	**24,40,000**

Additional Information:

(a) Dividend of ₹ 50,000 was paid during the year ended 31st March, 2014.

(b) Depreciation was provided on land and Building, Plant and Machinery and Equipments for the year ended 31st March, 2014.

(c) Machinery of ₹ 50,000 and equipment of ₹ 20,000 were acquired during the year ended 31st March, 2014.

(d) Income tax provision was made for the year ended 31st March, 2014 of ₹ 1,30,000.

Prepare Cash Flow statement by Indirect Method as per AS-3 for the ended 31st March, 2014.

(T.Y.B.Com, Modified)

4. State the effect on Operating Activities in Cash Flow Statement in respect of each of the following transactions separately. (i) An increase in Debtors. (ii) Decrease in Accounts Receivable. (iii) Goodwill written off. (iv) Decrease in Accounts Payable. (v) An increase in Creditors.

5. Following are the Balance Sheet of Abhishek Products Ltd.

Liabilities	31.3.2013 ₹	31.3.2014 ₹	Assets	31.3.2013 ₹	31.3.2014 ₹
Equity Share Capital	10,00,000	12,00,000	Fixed Assets	11,00,000	13,00,000
10% Preference Share Capital	5,00,000	3,00,000	Investments	2,60,000	2,60,000
Capital Redemption Reserve	–	2,00,000	Stock	7,40,000	8,99,000
Profit and Loss A/c	57,000	1,00,000	Sundry Debtors	10,50,000	9,90,000
Sundry Creditors	13,73,000	12,50,000	Bills Receivable	1,50,000	2,10,000
Proposed Equity Dividend	1,50,000	1,80,000	Bank Balance	1,00,000	80,000
Provision for Taxation	1,70,000	2,10,000	Cash in Hand	30,000	20,000
Provision for Depreciation	2,00,000	3,35,000	Preliminary Expenses	20,000	16,000
Total	**34,50,000**	**37,75,000**	**Total**	**34,50,000**	**37,75,000**

Additional Information:

(a) Preference Shares were redeemed on 1.4.2013. Company pays preference dividend on 31st March every year.

(b) Fixed Assets of ₹ 2,00,000 were purchased on 31.3.2014 against which equity shares of ₹ 2,00,000 were issued at par.

(c) Dividend received on investment was ₹ 26,000.

(d) Proposed Equity Dividend for 2013-14 ₹ 1,50,000 was paid during 2013-14.

(e) Provision for Taxation for 2013-14 ₹ 1,70,000 was paid during 2013-14.

Prepare Cash Flow Statement for the year ended 31st March, 2014 by indirect method a per AS-3 from the above information. **(T.Y.B.Com., Modified)**

6. Following are the Balance Sheets of Saket Industries Ltd.

Liabilities	31.3.2013 ₹	31.3.2014 ₹	Assets	31.3.2013 ₹	31.3.2014 ₹
Equity Share Capital	4,00,000	8,00,000	Fixed Assets	3,77,000	8,98,000
10% Preference Share Capital	4,00,000	5,00,000	Investment	2,60,000	6,00,000
Capital Redemption Reserve	4,00,000	–	Stock	5,00,000	4,40,000
Profit and Loss A/c	–	80,000	Sundry Debtors	7,00,000	7,60,000
Bank Overdraft	1,00,000	50,000	M.V.A.T. Refund Due	33,000	36,000
Sundry Creditors	12,00,000	13,40,000	Advance Income Tax	1,20,000	2,00,000
Proposed Equity Dividend	40,000	80,000	Cash and Bank Balance	50,000	1,00,000
Provision for Taxation	1,20,000	2,16,000	Profit and Loss A/c	80,000	–
			Share Issue Expenses	40,000	32,000
Total	**26,60,000**	**30,66,000**	**Total**	**26,60,000**	**30,66,000**

Addition Information:

(a) Bonus Equity Shares were issued to the existing Equity shareholders in the proportion of 1 : 1, out of Capital Redemption Reserve on 1.4.2013.

(b) Additional Preference Shares were issued on 31.3.2014. Company pays preference dividend on 31st March every year.

(c) Fixed Assets were sold for ₹ 66,000 on which loss on sale was ₹ 34,000.

(d) Fixed Assets costing ₹ 4,00,000 were purchased during the year.

(e) Income tax for 2012-13 was assessed at ₹ 1,20,000 on 31.12.2013.

Prepare Cash Flow Statement for the year ended 31st March, 2014 by indirect method as per AS-3 from the above information. **(T.Y. B.Com., Modified)**

7. Following are the Balance Sheets of Palghar Industries Ltd.

Liabilities	31.3.2013 ₹	31.3.2014 ₹	Assets	31.3.2013 ₹	31.3.2014 ₹
Equity Share Capital	5,00,000	10,00,000	Fixed Assets	8,50,000	9,50,000
Profit and Loss A/c	1,70,000	4,65,000	Investments	3,00,000	3,00,000
10% Debentures	5,00,000	–	Advance to Suppliers	1,33,000	36,000
Bank Overdraft	1,00,000	75,000	Stock	5,00,000	4,71,000
Sundry Creditors	9,80,000	6,50,000	Sundry Debtors	7,12,000	6,82,000
Provision for Depreciation	2,50,000	2,90,000	Advance Income Tax	80,000	1,60,000
Proposed Dividend	1,00,000	2,00,000	Prepaid Expenses	50,000	60,000
Unpaid Dividend	70,000	1,60,000	Cash Balance	25,000	1,75,000
	–	10,000	Preliminary Expenses	20,000	16,000
Total	**26,70,000**	**28,50,000**	**Total**	**26,70,000**	**28,50,000**

Additional Information:

(a) On 1.4.2013, 10% Convertible Debentures were converted into Equity Shares.

(b) During the year 2013-14, a fixed asset having original cost ₹ 50,000 which was fully depreciated, was sold off for ₹ 10,000.

(c) Investment costing ₹ 1,00,000 was sold ₹ 90,000 and new investment was made during the year 2013-14.

(d) Proposed dividend for 2012-13 was paid on 5.4.2013, but a dividend warrant of ₹ 10,000 was returned unpaid.

(e) Income tax for 2012-13 was assessed at ₹ 70,000 on 25.12.2013 and refund of income tax of ₹ 10,000 was received on 10.1.2014.

Prepare Cash Flow Statement for the year ended 31st March, 2013-14 by indirect method as per AS-3 from the above information. **(T.Y. B.Com., Modified)**

8. Following are the Balance Sheet of Wada Enterprises Ltd.

Liabilities	31.3.2013 (₹)	31.3.2014 (₹)	Assets	31.3.2013 (₹)	31.3.2014 (₹)
Equity Share Capital	6,00,000	8,00,000	Fixed Assets	7,40,000	8,30,000
10% Preference Share Capital	4,00,000	5,00,000	Investment	2,00,000	1,50,000
Securities Premium	–	20,000	Stock	5,80,000	5,60,000
Profit and Loss A/c	2,50,000	4,50,000	Sundry Debtors	7,60,000	6,60,000
Sundry Creditors	7,50,000	2,30,000	Advance Income Tax	1,20,000	50,000
Provision for Depreciation	3,20,000	4,50,000	Bank Balance	1,25,000	3,75,000
Provision Equity Divided	1,80,000	2,40,000	Cash Balance	75,000	1,25,000
Provision for Taxation	1,00,000	60,000			
	26,00,000	**27,50,000**		**26,00,000**	**27,50,000**

Additional Information:

(a) On 1.4.2013, 10% Preference shares of ₹ 1,00,000 were issued for cash.

(b) Equity shares of ₹ 2,00,000 were issued at a premium of 10% on 1.1.2014.

(c) During the year 2013-14, a fixed assets having original cost of ₹ 1,10,000 was sold at a profit of ₹ 10,000.

(d) Investment costing ₹ 50,000 was sold for ₹ 90,000 during the year 2013-14.

(e) Proposed equity dividend for 2012-13 was paid on 7.4.2013. Company pays preference dividend on 31st March every year.

(f) Income tax for 2013-14 was assessed of ₹ 1,00,000 on 31.12.2013 and refund of income tax of ₹ 20,000 was received on 15.1.2014.

Prepare Cash Flow Statement for the year ended 31st March, 2014 by indirect method as per AS-3 from the above information. **(T.Y. B.Com., Modified)**

9. Following are the summarised Balance Sheet of M/s. Sanghi Bros. Ltd.

Liabilities	31.3.2013 (₹)	31.3.2014 (₹)	Assets	31.3.2013 (₹)	31.3.2014 (₹)
Equity Share Capital	1,00,000	1,00,000	Cash on Hand	22,000	8,000
General Reserve	30,000	30,000	Cash at Bank	23,000	37,000
Profit and Loss A/c	45,000	33,000	Sundry Debtors	33,000	22,000
12% Debentures (F.V. ₹ 100 each)	45,000	35,000	Marketable Investments	55,000	38,000
Current	55,000	54,000	Stock in Trade	41,000	52,000
			Land and Buildings	75,000	60,000
			Plant and Machinery	26,000	35,000
Total	**2,75,000**	**2,52,000**	**Total**	**2,75,000**	**2,52,000**

Additional Information:

(a) Interim Dividend @ 10% was paid during the year 2013-14.

(b) new machinery for ₹ 15,000 was purchased and an old machine costing ₹ 6,000 (accumulated depreciation ₹ 3,000) was sold at book value.

(c) Debentures were redeemed by purchasing from open market @ ₹ 90 per debenture and profit credited to Profit and Loss A/c.

You are required to prepare Cash flow Statement for the year ended 31st March, 2014 in accordance with the AS-3 using method.

10. The Balance Sheet of M/s Virat Ltd. as on 31st March, 2014 were as follows:

Balance Sheet as on ....

Liabilities	31.3.2013 (₹)	31.3.2014 (₹)	Assets	31.3.2013 (₹)	31.3.2014 (₹)
Equity Share Capital	3,00,000	3,00,000	Land and Buildings	1,50,000	1,46,250
General Reserve	1,00,000	1,00,000	Plant and Machinery	3,00,000	3,22,750
Profit and Loss A/c	–	63,000	Furniture and Fixtures	60,000	40,000
12% Debentures	1,90,000	1,00,000	Stock	86,000	80,000
Creditors	60,000	1,40,000	Book Debts	95,000	1,63,000
Outstanding Expenses	20,000	20,000	Cash	15,000	5,000
Provision for Tax	1,10,000	1,00,000	Bank	10,000	6,000
Proposed Equity Dividend	30,000	33,000	Advance Tax	84,000	90,000
Unclaimed Divided	–	2,000	Preliminary Expenses	10,000	5,000
Total	**8,10,000**	**8,58,000**	**Total**	**8,10,000**	**8,58,000**

Additional Information:

New Machinery costing ₹ 80,000 was bought on 31st March, 2014 and an Old Machinery costing ₹ 18,000 (accumulated depreciation ₹ 12,000) was sold on 1st April, 2013 for ₹ 11,000.

Prepare Cash Flow Statement as per As-3 (Use Indirect method). **(T.Y. B.Com., Modified)**

11. From the following details, calculate Net Cash Flow from Financing Activities:

Particulars	(₹)	Particulars	(₹)
Bank Loan Repaid	4,00,000	Financial Dividend Paid	6,00,000
Equity Shares Issued	15,00,000	Redemption of 12% Debentures	5,00,000
Interim Dividend Paid	3,00,000	Issues of Bonus Shares (Out of Free Reserves)	4,00,000

12. Classify the following into:

(i) Operating Activities (ii) Financing Activities

(iii) Investment Activities (iv) None of these Activities

- Buyback of Own Equity Shares
- Investments Made in Government Securities
- Loss on Sale of Machinery
- Payment of Service Tax
- Issue of Debenture at Par
- Purchase of Land by Issuing Shares at Premium.

13. Following are the Balance Sheet of RAM Ltd. as on 31.3.2013 and 31.3.2014:

Liabilities	31.3.2013 ₹	31.3.2014 ₹	Assets	31.3.2013 ₹	31.3.2014 ₹
Equity Share Capital	12,000	14,25,000	Goodwill	2,59,000	2,07,500
Capital Reserves	–	75,000	Machinery	3,37,500	7,16,000
Profit and Loss A/c	75,000	1,00,000	Land	3,75,000	3,05,000
Creditors	1,57,500	2,45,000	Trade Investment	65,000	1,34,000
Provision for Tax	1,05,000	1,20,000	Stock	3,17,500	2,90,000
Proposed Dividend	1,00,000	1,25,000	Debtors	2,25,000	3,37,500
			Cash	58,500	1,00,000
Total	**16,37,500**	**20,90,000**	**Total**	**16,37,500**	**20,90,000**

Additional Information:

(a) During the year Machinery was sold for ₹ 45,000 (W.D.V. ₹ 57,500).

(b) During the year Depreciation provided on Machinery was ₹ 75,000.

(c) Profit on sale of land was transferred to Capital Reserve.

(d) During the year, Interim Dividend was paid ₹ 37,500.

(e) Dividend received in investment was ₹ 10,000.

Prepare Cash Flow Statement as on 31.3.2014 as per AS-3 by Indirect Method. Prepare Machinery A/c and Land A/c. **(T.Y. B.Com., Modified)**

14. Prepare a Cash Flow Statement indicating therein separately the cash from operations from the following Balance Sheets of Revolt Ltd.

Balance Sheet as at 31st March

Liabilities	2014 ₹	2013 ₹	Assets	2014 ₹	2013 ₹
Creditors	25,000	32,000	Cash	2,000	
Reserves	23,000	47,000	Debtors	45,000	60,000
Debentures	60,000	50,000	Stock	45,000	55,000
Outstanding Expenses	6,000	6,000	Prepaid Expenses	4,000	3,000
Share capital	1,33,000	1,14,000	Investments	27,000	20,000
Bank Overdraft	–	12,000	Staff Loan	4,000	1,20,000
			Fixed Assets	1,20,000	–
	2,47,000	**2,61,000**		**2,47,000**	**2,61,000**

Other Particulars:

(a) Balance of Depreciation Account as at 1.4.2013 and 1.4.2014 was ₹ 15,000 and ₹ 20,000 respectively.

(b) A Machinery of ₹ 5,000 on which depreciation of ₹ 1,000 was charged sold for ₹ 4,500.

(c) Staff Loan of ₹ 1,000 were written off during the year. **(T.Y. B.Com., Modified)**

15. From the following Balance Sheet of FYCOM Ltd. as on 31-3-2013 and 31-3-2014, prepare the Cash Flow Statement for the year ended 31-3-2014.

Balance Sheet

Liabilities	31.3.2013	31.3.2014	Assets	31.3.2013	31.3.2014
Equity Share Capital	22,50,000	26,25,000	Goodwill	4,50,000	3,52,500
General Reserve	1,50,000	2,25,000	Machinery	6,75,000	14,35,500
Capital Reserve	–	1,87,500	Land	7,50,000	5,62,500
Profit and Loss	1,35,000	2,02,500	Investments	75,000	2,62,500
Creditors	3,30,000	4,87,500	Stock	6,37,500	5,85,000
Provision for Tax	2,10,000	2,40,000	Debtors	4,50,000	6,75,000
Proposed Dividend	2,02,500	2,47,500	Insurance Prepaid	10,000	10,000
			Cash and Bank Balance	1,17,500	2,00,000
			Bills Receivable	1,12,500	1,35,000
	32,77,500	**42,15,000**		**32,77,500**	**42,15,000**

Additional Information:

(a) Durning the year, Machinery was sold for ₹ 90,000 (W.D.V. ₹ 1,12,500).

(b) During the year, Depreciation provided on Machinery was ₹ 1,35,500.

(c) Profit on Sale of Land was transferred to Capital Reserve.

(d) During the year Interim Dividend paid was ₹ 75,000.

(e) Dividend received on Investment was ₹ 15,750 out of which ₹ 4,500 was pre-acquisition dividend.

16. From the following information you are required to prepare a cash statement of Shalini Enterprises for the year ended 31st December, 2014.

Balance Sheet

Liabilities	2013 ₹	2014 ₹	Assets	2013 ₹	2014 ₹
Anil Mahajan's Capital			Plant and Machinery	50,000	1,11,000
Opening Balance	70,000	1,00,000	Inventory	15,000	40,000
Additions during the year	25,000	15,000	Debtors	38,000	84,000
Profit of the year	40,000	2,05,000	Cash	20,000	7,000

	1,35,000	3,20,000	Prepaid Expenses	2,000	4,000
Less: Withdrawals	35,000	70,000	Factory Premises	–	1,00,000
Closing balance	1,00,000	2,50,000			
Secured Loans	–	40,000			
Creditors	14,000	39,000			
Tax Payable	1,000	3,000			
Provision for Depreciation	10,000	14,000			
	1,25,000	**3,46,000**		**1,25,000**	**3,46,000**

Profit & Loss A/c for the year ending 31st December, 2014

Particulars	₹	Particulars	₹
To Opening Inventory	15,000	By Sales	12,50,000
To Purchases	9,30,000	By Closing Inventory	40,000
To Gross Profit c/d	3,45,000		
	12,90,000		**12,90,000**
To General Expenses	1,10,000	By Gross Profit b/d	3,45,000
To Depreciation	8,000	By Profit on Sale of Asset	3,000
To Taxes	25,000	(W.D.V. ₹ 5,000)	
To Net Profit c/d	2,05,000	Original Cost ₹ 9,000	
	3,48,000		**3,48,000**

Additional Information:

(a) A scooter was taken from Ms. Ketki (a customer) at ₹ 50,000 in settlement of her dues was not recorded.

(b) Provide depreciation @ 10% on factory premises and @ 20% on scooter which was not provided.

(T.Y. B.Com., Modified)

17. The Balance Sheets of Sagar Ltd. are as follows:

Balance Sheet as on 31st December

Liabilities	2013 ₹	2014 ₹	Assets	2013 ₹	2014 ₹
Equity Share Capital	1,50,000	2,50,000	Goodwill	55,000	45,000
General Reserve	–	30,000	Land and Building	80,000	90,000
Profit and Loss A/c	–	29,000	Plant and Machinery	40,000	1,00,000
Debentures	1,00,000	–	Stock	42,000	53,000
Sundry Creditors	57,000	46,000	Debtors	90,000	98,000
Bills Payable	30,000	6,000	Bills Receivable	8,000	12,000
Provision for Tax	–	25,000	Prepaid Expenses	6,000	4,000
Proposed Dividend	–	20,000	Cash in Hand	10,000	4,000
			Profit and Loss A/c	6,000	–
	3,37,000	**4,06,000**		**3,37,000**	**4,06,000**

Additional Information:

(a) During the year 2014, Depreciation of ₹ 8,000 and ₹ 10,000 have been charged on Land and Building and Plant and Machinery respectively.

(b) An Interim Dividend of ₹ 7,500 was paid during the year 2014.

(c) During the year 2014, Machinery having a book value of ₹ 8,000 was sold for ₹ 7,000.

Prepare a Cash Flow Statement (by Indirect Method) for the year ended 31st December, 2014 as per AS-3. **(T.Y. B.Com., Modified)**

18. You are required to prepare cash flow statement as per AS-3 for the year ended 31.12.14 from following Balance Sheets as on 31st December and additional information of ATKT Ltd.

Liabilities	**2013 ₹**	**2014 ₹**	**Assets**	**2013 ₹**	**2014 ₹**
Share Capital	5,00,000	7,50,000	Building	1,00,000	2,90,000
Share Premium	50,000	75,000	Machinery	90,000	2,70,000
Profit and Loss A/c	–	13,000	10% Investment	1,00,000	1,00,000
12% Debentures	1,00,000	1,00,000	Stock	3,70,000	2,94,000
Creditors	80,000	50,000	Debtors	58,000	49,000
Bank Overdraft	–	10,000	Advance Tax	5,000	60,000
Tax Provision	6,000	68,000	Cash	5,000	6,000
Bad debts Provision	4,000	6,000	Bank Balance A/c	6,000	–
O/s Debenture Interest	6,000	3,000	Profit and Loss A/c	7,000	–
			Share Issue Expenses	5,000	6,000
Total	**7,46,000**	**10,75,000**	**Total**	**7,46,000**	**10,75,000**

(T.Y. B.Com., Modified)

Additional Information:

(a) Share issue expenses incurred in the year ₹ 2,500.

(b) Depreciation provided on Building ₹ 10,000 and Machinery ₹ 20,000.

19. Brijesh started business by introducing capital of ₹ 1,00,000 on 1.4.2014. He has taken Term Loan Bank of India of ₹ 4,00,000 at 12% interest and purchased premises of ₹ 3,00,000 and Furniture and Equipment of ₹ 1,50,000. His projected Trading and Profit and Loss Account for the first year ended 31st March, 2015 is as follows:

Particulars	**₹**	**₹**	**Particulars**	**₹**	**₹**
To Opening Stock		–	By Sales		
To Purchases			Cash Sales	1,70,000	
Cash Purchases	50,000		Credit Sales	8,50,000	
Credit Purchases	6,50,00			10,20,000	
	7,00,000		*Less:* Returns	20,000	
Less: Returns	10,000				10,00,000
		6,90,000	By Closing Stock		50,000
To Wages		60,000			
To Gross Profit c/d		3,00,000			
		10,50,000			10,50,000
To Administrative Expenses		60,000	By Gross Profit b/d		3,00,000
To Selling Expenses		1,00,000	By Profit on Sale of Equipment		5,000
To Interest on Bank Loan		48,000	(Cost of Equipment Sold ₹ 20,000)		
To Depreciation on Equipment		30,000			
To Net Profit		67,000			
Total		**3,05,000**	**Total**		**3,05,000**

(T.Y. B.Com., Modified)

Prepare Cash Flow Statement for the year ended 31st March, 2015 as per AS-3 and calculate Cash and Bank Balance as on that date. Use Indirect Method. Balances 31st March, 2005 expected are:

(a) Debtors ₹ 1,50,000, Creditors ₹ 50,000.

(b) Last quarter interest on Bank Loan is not yet paid.

Reconcile your answer by preparing projected Balance Sheet (in vertical form) as at 31st March, 2015.

20. Horizon Ltd. engaged in the following transactions: (1) Dividend paid, (2) Interest, (3) Issued long term bonds, (4) Purchased long-term investment, (5) Equipment sold. (5) Dividend received on shares held, (7) Purchased land, (8) Received cash from customers, (9) Wages paid to workers, (10) Issue bonus shares out of general reserves.

Identify whether it is: (a) an operating, (b) an investing, (c) a financing or (d) none of the above.

21. You are required to prepare Cash Flow Statement as per AS-3 for the year ended 31st December, 2014 from the following Balance Sheet as on 31st December, 2014 and additional of M/s. Rajeshree Co. Ltd.

Balance Sheet

Liabilities	2013 ₹	2014 ₹	Assets	2013 ₹	2014 ₹
Equity Share Capital	2,00,000	5,00,000	Fixed Assets	6,45,000	5,81,000
Preference Share Capital	3,00,000	–	Investment (Long-term)	60,000	80,000
Securities Premium	50,000	80,000	Stock	1,00,000	1,50,000
General Reserve	60,000	1,10,000	Debtors	1,40,000	1,50,000
Profit and Loss A/c	70,000	1,00,000	Bills Receivable	50,000	75,000
10% Debentures	2,00,000	–	Prepaid Expenses	10,000	9,000
12% Debentures	–	1,00,000	Cash	5,000	7,000
Creditors	50,000	75,000	Bank	15,000	23,000
Bills Payable	40,000	30,000	Preliminary Expenses	10,000	–
Proposed Dividend	30,000	50,000			
Provision for Tax	35,000	30,000			
Total	**10,35,000**	**10,75,000**	**Total**	**10,35,000**	**10,75,000**

Additional Information:

(a) Machinery worth ₹ 40,000 sold for ₹ 45,000.

(b) Furniture purchased during the year amounted to ₹ 65,000.

(c) 10% Debentures were given option of conversion into 12% Debentures or redemption in cash. Accordingly, half of the debenture holders exercised option in favour of new 12% debentures and rest redeem in cash.

(d) Preference Shares redeemed at 10% premium. The premium on redemption has been debited to Securities Premium account. New Equity Shares were issued at premium.

(e) Provision for tax made for the year ₹ 40,000.

(f) Interim dividend paid during the year ₹ 25,000. Proposed Dividend for the year 2003 had been paid during the year, 2004. **(T.Y. B.Com., Modified)**

22. Following are summarised Balance Sheets of BDM Ltd. as on 31st December, 2013 and 2014.

Liabilities	2013 ₹	2014 ₹	Assets	2013 ₹	2014 ₹
Equity Share Capital	2,00,000	2,50,000	Bank	35,000	16,000
12% Debentures	1,00,000	80,000	Stock	40,000	75,000
10% Preference Share Capital	50,000	80,000	Debtors	90,000	1,50,000
Bank Loan	70,000	1,10,000	Machinery	75,000	60,000
Reserves	20,000	25,0000	Furniture	10,000	8,000
Profit and Loss A/c	50,000	60,000	Land	1,70,000	2,80,000
Creditor	60,000	75,000	Building	1,40,000	99,000
Bills Payable	40,000	33,000	Goodwill	30,000	25,000
Total	**5,90,000**	**7,13,000**	**Total**	**5,90,000**	**7,13,000**

Additional Information:

(a) Depreciation charged during 2014 was ₹ 4,000 on Furniture, ₹ 12,000 on Machinery and ₹ 20,000 on Buildings.
(b) Part of Machinery was sold for ₹ 15,000 at a loss of ₹ 4,000.
(c) During 2014 interim dividend was paid ₹ 10,000 and Income Tax was paid ₹ 5,000.
(d) During the year part of the Building was sold at book value.

You are required to prepare Cash Flow Statement as per AS-3 (Use Indirect method).

(T.Y. B.Com., Modified)

23. The Balance Sheets of Dinesh Ltd. are as follows:

Balance Sheet as at 31st March, 2013 and 2014

Liabilities	2013 ₹	2014 ₹	Assets	2013 ₹	2014 ₹
Equity Share Capital	3,00,000	5,00,000	Goodwill	1,10,000	90,000
General Reserve	–	60,000	Land and Building	1,60,000	1,80,000
Profit and Loss A/c	–	58,000	Plant and Machinery	80,000	2,00,000
Debentures	2,00,000	–	Stock	84,000	1,06,000
Sundry Creditors	1,14,000	92,000	Debtors	1,80,000	1,56,000
Bills Payable	60,000	12,000	Advance Income Tax	–	40,000
Provision for Income Tax	–	50,000	Bills Receivable	16,000	24,000
Proposed Dividend	–	40,000	Prepaid Expenses	12,000	8,000
			Cash in Hand	20,000	8,000
			Profit and Loss A/c	12,000	–
Total	**6,74,000**	**8,12,000**	**Total**	**6,74,000**	**8,12,000**

Additional Information:

(a) During the year ended 31-03-2014. Depreciation of ₹ 16,000 and ₹ 20,000 have been charged on Land and Building and Plant and Machinery respectively.
(b) An Interim Dividend of ₹ 15,000 was paid during the year ended on 31-03-2014.
(c) During the year Machinery having book-value of ₹ 16,000 was sold for ₹ 14,000.

Prepare cash flow statement by Indirect method for the ended 31st March, 2014 as per AS-3.

(T.Y. B.Com., Modified)

24. The Mismanagement Ltd. always finds that it is hard pressed funds. Inspite of borrowing funds at a high rate from Bank, they are not able to make payment to suppliers in time. The financial position of the company reflected from the Balance Sheet for the last two years is as under:

Particulars	2013		2014	
	₹ lakhs	**₹ lakhs**	**₹ lakhs**	**₹ lakhs**
Share Capital		–		
(₹ 10 each fully paid)	10.00		10.00	
Profit and Loss A/c	1.65	11.65	0.45	10.45
Bank Overdraft		1.55		5.95
Sundry Creditors		1.00		6.00
		14.20		22.40
Land and Building		3.00		5.00
Plant and Machinery	5.00		6.00	
Less: Depreciation	1.20	3.80	1.80	4.20
Motor Cars	1.00		1.30	
Less: Depreciation	0.40	0.60	0.60	0.70
Stock		2.20		7.20
Debtors		4.60		5.30
		14.20		22.40

The following further information is available:

(a) Dividend was paid in 2014 at the rate of 10%.

(b) The company sold a motor car during 2014 for ₹ 8,000. This was purchased for ₹ 10,000 and its written down value in the books on 1.1.2014 was ₹ 5,000.

Prepare Cash Flow Statement as per AS-3 by indirect method. **(T.Y. B.Com., Modified)**

25. From the following Balance Sheets of Z. Ltd., prepare a Cash Flow Statement as per AS-3 for the year ended 31 December, 2014 by indirect method.

Liabilities	**2013 ₹**	**2014 ₹**	**Assets**	**2013 ₹**	**2014 ₹**
Equity Share Capital	2,00,000	2,50,000	Fixed Assets	3,02,500	2,85,000
10% Pref. Share Capital	1,00,000	–	Debtors	60,000	70,000
5% Debentures (Issued on 1.7.2014)	–	50,000	Stock	1,00,000	90,000
Capital Redemption Reserve	–	50,000	Bank	45,000	30,000
Profit and Loss A/c	1,25,000	30,000	Preliminary Expenditure	30,000	20,000
Creditors	75,000	70,000			
Bills Payable	37,500	45,000			
Total	**5,37,500**	**4,95,000**	**Total**	**5,37,500**	**4,95,000**

Additional Information:

(a) Preference Shares were redeemed at 10% premium on 1.7.2014 with half yearly dividend.

(b) Fixed assets were purchased for ₹ 97,500 on 1.10.2014.

(c) Dividend of ₹ 20,000 on equity shares was paid.

(d) Fixed Assets having original cost of ₹ 1,00,000 on which accumulated Depreciation was ₹ 30,000 was sold on 30.9.2014 at ₹ 40,000. **(T.Y. B.Com., Modified)**

Chapter 5

Working Capital Concept

INTRODUCTION

Sound Working Capital Management has become a necessity in an era of information technology for a company to succeed. The best example to support this argument is the performance of Dell computers as reported in one of the recent Fortune article.

A perusal of the article will give us an insight into how Dell could use technology for improving the performance of components of working capital.

1. Use of Internet as a tool for reducing costs of linking manufacturer with their suppliers and dealers.
2. Outsourcing an operations if the firm's core competence does not permit the performance of the operation effectively.
3. Train the employees to accept change.
4. Introduction of Internet business
5. Releasing capital by reduction in investment in inventory for improving the profitability of operating capital.

A financial manager spends a large part of his time in managing working capital.

There are two important elements of working capital management.

1. Decisions on the amount of current assets to be held by a firm for efficient operations of its business.
2. Decisions on financing working capital requirement.

Inadequacy or mismanagement of Working Capital is the leading cause of many business failures. Working Capital is that portion of asset of a business which are used in current operations. They are used in the operating cycle of the firm. It is defined as the excess of Current Assets over Current Liabilities and Provisions.

Components of Current Assets and Current Liabilities

Current Assets are: 1. Inventories 2. Sundry Debtors, 3. Bills Receivables, 4. Cash and Bank Balances, 5. Short-term Investments, 6. Advances such as advances for purchase of raw materials, components and consumable stores, prepaid expenses etc.

Current Liabilities are: 1. Sundry Creditors, 2. Bills Payable, 3. Creditors for outstanding expenses, 4. Provision for tax, 5. Other provisions against the liabilities payable within a period of 12 months.

Working Capital Management is concerned with managing the different components of current assets and current liabilities. A firm must have adequate Working Capital neither excess nor shortage. Maintaining adequate Working Capital at the satisfactory level is crucial for maintaining the competitiveness of a firm. Any lapse of a firm on this account may lead a firm to the state of insolvency.

Concepts of Working Capital: There are two important concepts of Working Capital – Gross Working Capital and Net Working Capital.

Gross Working Capital: Gross Working Capital refers to the amounts invested in the various components of current assets. This concept has the following practical relevance.

(a) Management of current assets is the crucial aspect of Working Capital Management.

(b) It is an important component of operating capital. Therefore, for improving the profitability on its investment, a finance manager of a company must give top priority to efficient management of current assets.

(c) The need to plan and monitor the utilization of funds of a firm demands working capital management as applied to current assets.

(d) It helps in the fixation of various areas of financial responsibility.

Net Working Capital: Net Working Capital is the excess of current assets over current liabilities and provisions. Net Working Capital is positive, when current assets exceed current liabilities and negative when current liabilities exceed current assets. This concept has the following practical relevance.

1. It indicates the ability of the firm to effectively use the spontaneous finance in managing the firm's Working Capital requirements.
2. A firm's short-term solvency is measured through the Net Working Capital position it commands.

Permanent Working Capital: Permanent Working Capital is the minimum amount of investment required to be made in current assets at all times to carry on the day-to-day operation of firm's business. This minimum level of current assets has been given the name of core current assets by the Tandon Committee. It is also known as Fixed Working Capital.

Temporary Working Capital: It is also known as Variable Working Capital or Fluctuating Working Capital. The firm's working capital requirements vary depending upon the seasonal and cyclical changes in demand for a firm's products. The extra Working Capital required as per the changing production and sales levels of a firm is known as Temporary Working Capital.

Objective of Working Capital Management: The basic objective of financial management is maximizing the net wealth of shareholders. A firm must earn sufficient returns from its operations to ensure the realization of this objective. There exists a positive correlation between sales and firm's return on its investment. The amount of earnings that a firm earns depends upon the volume of sales achieved. There is the need to ensure adequate investment in current assets, keeping pace with accelerating sales volume. Firms make sales on credit. There is always a time gap between sale of goods on credit and the realization of proceeds of sales from the firm's customers. Finance manager of a firm is required to finance the operation during this time gap. Therefore, objective of Working Capital Management is to ensure smooth functioning of the normal business operations of a firm. The firm has to decide on the amount of Working Capital to be employed.

The firm may have a conservative policy of holding large quantum of current assets to ensure larger market share and to prevent the competitors from snatching any market for their products. But such a policy will affect the firm's return on its investment. The firm will have higher than the required amount of investment in current assets. This excess funds locked in current assets will reduce the firm's profitability on operating capital.

On the other hand a firm may have an aggressive policy of depending on spontaneous finance to the maximum extent. Credit obtained by a firm from its suppliers is known as spontaneous finance. Here a firm will try to reduce its investments in current assets as much as possible but without affecting the firm's ability to meet working capital needs for sales growth targets. Such a policy will ensure higher return on its investment as the firm will not be locking in any excess funds in current assets. However, any error in forecasting can affect the operations of the firm unfavorably if the error is fraught with the down side risk. There is also another risk of firm losing on maintaining its liquidity position.

Objective of working capital management is achieving a trade-off between liquidity and profitability of operations for the smooth conduct of normal business operations of the firm.

Need for Working Capital

The need for working capital arises on account of two reasons:

(a) To finance operations during the time gap between sale of goods on credit and realization of money from customers of the firm.

(b) To finance investments in current assets for achieving the growth target in sales.

Therefore finance for the operations in operating cycle of a firm, working capital is required.

Operating Cycle: Operating cycle of a firm has the following elements.

1. Acquisition of resources from suppliers.
2. Making payments to suppliers.
3. Conversion of raw materials into finished products.
4. Sale of finished products to customers.
5. Collection of cash from customers for the goods sold.

The time gap between acquisition of resources and collection of cash from customers is known as the operating cycle. These five phases occur on a continuous basis. There is no synchronization between the activities in operating cycle. Cash outflows occur before the occurrences of cash inflows in operating cycle. Cash outflows are certain. On the other hand cash inflows are uncertain because of uncertainty associated. With effecting sales as per the sales forecast and ultimate timely collection of amount due from the customers to whom the firm has sold its goods. Since cash inflows do not match with cash outflows, firm has to invest in various current assets to ensure smooth conduct of day-to-day business operations. Therefore, the firm has to assess the operating cycle time of its operation for providing adequately for its working capital requirements.

Operating cycle = IC period + RC period

IC period = Inventory conversion period

RC period = Receivables conversion period

Inventory conversion period is the average length of time required to produce and sell the product.

1. Inventory Conversion period = $\dfrac{\text{Average Inventory} \times 365}{\text{Annual Cost Goods Sold}}$

2. Receivables conversion period = $\dfrac{\text{Average Accounts Receivable} \times 365}{\text{Annual Sales}}$

   Accounts payables period is also known as payables deferral period.

3. Accounts payables period = $\dfrac{\text{Average Creditors}}{\text{Purchases per day}}$

   (Payables deferral period)

   Purchases per day = $\dfrac{\text{Total Purchases for year}}{365}$

   Receivables conversion period is the average length of time required to convert the firm's receivables into cash.

4. Cash Conversion Cycle: Is the length of time between the firm's actual cash expenditure and its own cash receipt. The cash conversion cycle is the average length of time a rupee is tied up in current assets.

Illustration 1: The following details are available for XYZ Ltd. for the year ended 31.03.13

Sales	80,000	Inventory	
Cost of goods	56,000	31.03.12	9,000
		31.03.13	12,000
		Accounts Receivables	
		31.03.12	12,000
		31.03.13	16,000
		Accounts Payable	
		31.03.12	7,000
		31.03.13	10,000

What is the length of the operating cycle?
What is the cash cycle?
Assume 365 days in the year **(T.Y. B.Com., Modified)**

Solution:

Operating Cycle = Inventory Conversion Period + Accounts Receivables conversion Period

Inventory Conversion Period

$$\frac{\text{Average inventory}}{\text{Cost of goods sold}} \times 365$$

$$\frac{(9{,}000 + 12{,}000)/2}{56{,}000} \times 365$$

$$\frac{10{,}500 \times 365}{56{,}000} = 68.4 \text{ days}$$

$$\text{Receivables Conversion Period} = \frac{\text{Average Accounts Receivables}}{\text{Annual Sales}} \times 365$$

$$\frac{(12{,}000 + 16{,}000)/2 \times 365}{80{,}000} = 63.9 \text{ days}$$

$$\text{Payables Conversion Period} = \frac{\text{Average Accounts Payables}}{\text{Annual Cost of Goods Sold}} = 365\text{s}$$

$$\frac{8{,}500 \times 365}{56{,}000} = 55.4 \text{ days}$$

Operating Cycle = ICP + RCP
= 68.4 + 63.9 = 132.3 days

Cash Conversion Cycle = OC – PDP = 132.3 – 55.4 = 76.9 days

The Cash conversion cycle shows the time interval over which additional non-spontaneous sources of working capital financing must be obtained to carry out firm's activities. An increase in the length of operating cycle, without a corresponding increase in payables deferral period, increases the cash conversion cycle. Any increase in cash conversion cycle leads to additional working capital needs of the firm.

Determinants of Working Capital

A large number of factors influence Working Capital needs of a firm. The basic objective of a firm's Working Capital management is to ensure that the firm has adequate working capital for its operations, neither too much nor too little. Investing heavily in current assets will drain the firm's earnings and inadequate investment in current assets will reduce the firm's credibility as it affects the firm's liquidity. Therefore, the need to strike a balance between liquidity and profitability cannot be ignored. The following factors determine a firm's working capital requirements.

1. Nature of Business: Working Capital requirements are basically influenced by the nature of business of the firm. Trading organizations are forced to carry large stocks of finished goods, accounts receivables and accounts payables. Public utilities require lesser investment in working capital.

2. Size of Business Operation: Size is measured in terms of a scale of operation. A firm with large-scale of operation normally requires more Working Capital than a firm with a low scale of operation.

3. Manufacturing Cycle: Capital intensive industries with longer manufacturing process will have higher requirements of Working Capital because of the need to run their sophisticated and long production process.

4. Products Policy: Production schedule of a firm influences the investments in inventories. A firm, exposed to seasonal changes in demand when following a steady production policy will have to face the costs and risks associated with inventory accumulation during the off-season periods. On the other hand, a firm with a variable production policy will be facing different dimensions of management of working capital. Such a firm may have to effectively handle problem of production planning and control associated with utilization of installed plant capacity under conditions of varying volumes of production of products of seasonal demand.

5. Volume of Sales: There is a positive direct correlation between the volume of sales and the size of working capital of a firm.

6. Term of Purchase and Sales: A firm which allows liberal credit to its customers will need more working capital than that of a firm with strict credit policy. A firm which enjoys liberal credit facilities from its suppliers requires lower amount of working capital when compared to a firm which does not have such a facility.

7. Operating Efficiency: The firm with high efficiency in operation can bring down the total investment in working capital to lower levels. Here effective utilization of resources helps the firm in bringing down the investment in working capital.

8. Price Level Changes: Inflation affects the working capital levels in a firm. To maintain the operating efficiency under an inflationary set up a firm should examine the maintenance of working capital position under constant price level. The financial capital maintenance demands a firm to maintain higher amount of working capital keeping pace with rising price levels. Under inflationary conditions same levels of inventory will require increased investment. The ability of a firm to revise its products prices with rising price levels will decide the additional investment to be made to maintain the working capital intact.

9. Business Cycle: During boom, sales rise as business expands. Depression is marked by a decline in sales. During boom, expansion of business can be achieved only by augmenting investment in various assets that constitute working capital of a firm. When there is a decline in business on account of depression in economy, inventory glut forces a firm to maintain working capital at a level far in excess of the requirements under normal conditions.

10. Processing Technology: Longer the manufacturing cycle, larger the investment in working capital. When raw material passes through several stages in the production process, work in process inventory will increase correspondingly.

11. Fluctuations in the Supply of Raw Materials: Companies which use raw materials available only from one or two sources are forced to maintain buffer stock of raw materials to meet the requirements of uncertainty in lead time. Such firms normally carry more inventory than it would have, had the materials been available in normal market conditions.

Estimation of Working Capital: The best approach to estimate is based on operating cycle. Therefore, the two components of working capital are current assets and current liabilities. This approach is based on the assumption that production and sales occur on a continuous basis and all costs occur accordingly.

Estimation of Current Assets:

1. Raw materials inventory: Average investment in raw material is estimated.
2. Average investment in work-in-progress inventory is estimated.
3. Average investment in finished goods inventory is estimated.
4. Average investment in receivables (i.e., both in debtors and bills receivables) is estimated based on credit policy that the firm wishes to pursue.
5. Based on the firm's attitude towards risk, access to borrowing sources, past experience and nature of business, firms decide on the policy of maintaining the minimum cash balances.

Estimation of Current Liabilities:

1. Trade Creditors: Based on production budget, raw material consumption, credit period enjoyed from suppliers, average amount of financing available to the firm is estimated.

2. Direct Wages: Based on production budget, direct labour cost per unit, average time-lag in payment of wages, estimation is made on total wages to be paid on an average basis.

3. Overheads: Based on production budget, overhead cost per unit and average time-lag in payment of overhead, an estimation on an average basis of the amount outstanding to be paid to creditors for overhead is estimated.

Illustration 2: A proforma cost sheet of a company provides the following data:

Cost per unit:

Raw material	52.00
Direct labour	19.50
Overheads	39.00
Total Cost	110.50
Profit	19.50
Selling price	130.00

The following additional information is available:

(a) Average raw material in stock: One month

(b) Average materials in process: Half a month

(c) Credit allowed by suppliers: One month

(d) Credit allowed to debtors: Two months

(e) Time lag in payment of wages: one and a half weeks

(f) Time lag in payment of overheads: one month

(g) One-fourth of sales on cash basis

(h) Cash balance expected to be maintained is ₹ 1,20,000

You are required to prepare a statement showing the working capital required to finance a level of activity of 70,000 units of output. You may assume that production is carried on evenly throughout the year and wages and overheads occur similarly. Assume 360 days in a year. **(T.Y. B.Com., Modified)**

Solution: Estimation of Working Capital

(a) Investment in inventory

1. Raw material

$$\frac{RMC}{360} \times RMCP = \frac{70{,}000}{300} \times 30 = 3{,}03{,}333.33$$

2. Work-in process inventory

$$\frac{COP}{360} \times WRCP = \frac{70{,}000 \times 110.5}{360} \times 15 = 3{,}22{,}291.67$$

3. Finished goods inventory

$$\frac{COS}{360} \times FGCP = \frac{70{,}000 \times 110.5 \times 30}{360} = 6{,}44{,}583.33$$

(b) Investment in debtors

$$\frac{\text{Cost of Credit Sales}}{300} \times DCP$$

$$\frac{52{,}500 \times 110.5}{360} \times 00 = 9{,}00{,}375.00$$

(c) Cash balance 120000

(d) Total current Asset (A + B + C) 23,57,083.33

(e) Current Liabilities

1. Creditors

$$\frac{\text{Purchase of raw materials} \times PDP}{300}$$

$$70{,}000 \times \frac{52 \times 30}{360} = 3{,}03{,}333.33$$

2. Wages

$$70{,}000 \times \frac{195. \times 10}{360} = 37{,}916.67$$

3. Overheads

$$70{,}000 \times \frac{39 \times 30}{360} = 2{,}27{,}500.00$$

(f) Total Current Liabilities 5,68,750.00

(g) Net working Capital (D – F) 17,88,958.33

Illustration 3: The following annual figures relate to XYZ:

	(₹)
Sales (at two months credit)	36,00,000
Materials consumed (Suppliers extend two months credit)	9,00,000
Wages paid (monthly in arrears)	7,20,000
Manufacturing expenses outstanding at the end of the year	80,000
(Cash expenses are paid one month in arrears)	
Total administrative expenses paid, as above	2,40,000
Sales promotion expenses, paid quarterly in advance	1,20,000

The company sells its products on gross profit of 25% counting depreciation as part of the cost of production. It keeps one month's stock each of raw materials and finished goods, and a cash balance of ₹ 1,00,000.

Assume a 20 per cent safety margin. Calculate the working capital requirements of the company on cash cost basis. Ignore work in process. **(T.Y. B.Com., Modified)**

Solution:

Working Notes

Computation of manufacturing expenses

Sales		36,00,000
Less: Gross profit at 25%		9,00,000
Total manufacturing cost		27,00,000
Less: Materials	9,00,000	
Wages	7,20,000	16,20,000
Manufacturing expenses		10,80,000
Cash manufacturing expenses		9,60,000

Depreciation:

Total manufacturing expenses – Cash manufacturing expenses

10,80,000 – 9,60,000 = ₹ 1,20,000

Total cash cost

Total manufacturing cost	27,00,000
Less: depreciation	1,20,000
Cash manufacturing cost	25,80,000
Total manufacturing expenses	2,40,000
Sales promotion expenses	1,20,000
Total cash cost	29,40,000

Solution: **Statement Showing the Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)	Amt. (₹)
Current Assets				
Cash and Bank Balance			40,000	
Stock-in-Trade:				
Raw Material	10 × 1,56,000 × 2/52	1,20,000		
Work-in-progress	(10 + 5.50) × 1,56,000 × 2/52	93,000		
Finished Goods	21 × 1,56,000 × 3/52	1,89,000	4,02,000	
Debtors	23 × 1,56,000 × 5/52 × 3/4		2,58,750	
Gross Working Capital				**7,00,750**
***Less:* Current Liabilities**				
Creditors	10 × 1,56,000 × 2/52		6,000	
Outstanding Wages	3.50 × 1,56,000 × 1/52		10,500	
Outstanding Overheads	7.50 × 1,56,000 × 2/52		45,000	
				61,500
Working Capital				**5,85,250**

Notes: Work-in-progress is calculated 100% of Raw materials and 50% of Direct Labour and Overheads.

Illustration 4: A proforma cost sheet of a company provides the following particulars:

Particulars	**Rate per unit (₹)**
Raw Material Cost	10.00
Direct Labour Cost	3.50
Overheads Cost	7.50
Total	21.00
Profit	2.00
Selling Price	23.00

1. The company keeps raw materials in stock, on an average for 4 weeks; work in progress on an average for 2 weeks; and finished goods in stock on an average for 3 weeks.
2. The credit allowed by suppliers is 2 weeks and company allows 5 week credit to its debtor. The lag in payment of wages is 1 week and lag in payment of overhead expenses is 2 weeks.
3. The company sells 1/4 of the output against cash and Cash in hand and at Bank put together a ₹ 40,000.

You are required to prepare a statement showing estimate of working capital needed to finance an activity level of 1,56,000 units of production. Assume that production is carried on evenly throughout the year and wages and overheads accrue similarly. **(T.Y. B.Com., Modified)**

Solution: **Statement Showing the Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)	Amt. (₹)
Current Assets				
Cash and Bank Balance			40,000	
Stock-in-Trade:				
Raw Material	10 × 1,56,000 × 4/52	1,20,000		
Work in Progress	(10 + 5.50) × 1,56,000 × 2/52	93,000		
Finished Goods	21 × 1,56,000 × 3/52	1,89,000	4,02,000	
Debtors	23 × 1,56,000 × 5/52 × 3/4		2,58,750	
Gross Working Capital				7,00,750

***Less:* Current Liabilities**				
Creditors	10 × 1,56,000 × 2/52		60,000	
Outstanding Wages	3.50 × 1,56,000 × 2/52		10,500	
Outstanding Overheads	7.50 × 1,56,000 × 2/52			45,000
Working Capital				**5,85,250**

Notes: Work in progress is calculated 100% of Raw materials and 50% of Direct Labour and Overheads.

Illustration 5: Prepare a statement of working capital requirement for a level of activity of 1,80,000 units of production. The following information is available. (per unit):

	(₹)
Raw Materials	120
Direct Labour	60
Overheads	45
Selling Price	300

1. Raw materials are in stock on average of 3 weeks.
2. Materials are in process on average of 2 weeks.
3. Finished goods are in stock, on average of 5 weeks.
4. Credit allowed by supplier for 4 weeks.
5. Time lag in payment from debtors for 8 weeks.
6. Lag in payment of wages for 1½ weeks.
7. Lag in payment of overheads for 3 weeks.

20% of output is sold against cash. Cash in hand and Bank is expected to be ₹ 40,000. Wages and overheads accrue evenly and a time period of 50 weeks to be considered for a year.

(T.Y. B.Com., Modified)

Solution: **Statement of Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash and Bank Balance			40,000
Stock-in-Trade			
Raw Material	1,80,000 × 120 × 3/50	12,96,000	
Work-in-Progress	1,80,000 × [120 + 50% (60 + 45)] × 2/50	12,42,000	
Finished Goods	1,80,000 × (120 + 60 + 45) × 5/50	40,50,000	65,88,000
Debtors	1,80,000 × 300 × 80% × 8/50		69,12,000
Gross Working Capital			1,35,40,000
***Less:* Current Liabilities**			
Creditors	1,80,000 × 120 × 4/50	17,28,000	
Outstanding Wages	1,80,000 × 60 × 1.5/50	3,24,000	
Outstanding Overheads	1,80,000 × 45 × 3/50	4,86,000	
			25,38,000
Working Capital			**1,10,02,000**

Illustration 6: Radhika Manufacturing Limited presents the following information for 2011-2012.

Estimated Yearly Production and Sales = 60,000 units

Estimated Cost Elements per unit.

Raw materials	₹ 5
Wages	₹ 3
Overheads	₹ 2
Selling Price	₹ 12

Further Information:

1. The company extends two months credit to the debtors.
2. The company maintains one month's stock of Raw materials.
3. The company maintains one month's stock of finished goods.
4. The processing period is one month.
5. The company is allowed two months credit by suppliers.
6. Wages and Overheads are paid one month in arrears.
7. The cash and bank balance is expected to be equal to ₹ 25,000.
8. There is regular purchase, production and sales cycle.
9. During production process wages and overheads accrue evenly.
10. Debtors are to be calculated on cost basis.
11. 20% of the customers pay one month in advance.

Prepare statement showing an estimate of working capital.

Solution: **Statement Showing Estimate of Working Capital for the year ending 31st March, 2012**

	₹	₹	₹
Current Assets			
Stock of Materials		25,000 × 1	25,000
Stock of WIP			
Materials	25,000 × 1	25,000	
Wages	$15,000 \times 1 \frac{1}{2}$	7,500	
Overheads	$10,000 \times 1 \times \frac{1}{2}$	5,000	37,500
Stock of Finished Goods			
Materials	25,000 × 1	25,000	
Wages	15,000 × 1	15,000	
Overheads	10,000 × 1	10,000	50,000
Debtors			
Materials	25,000 × 2 × .80	40,000	
Wages	15,000 × 2 × .80	24,000	
Overheads	10,000 × 2 × .80	16,000	80,000
Cash and Bank			25,000
			2,17,500
Less: Current Liabilities			
Creditors	25,000 × 2	50,000	
Wages Payable	15,000 × 1	15,000	
Overheads Payable	10,000 × 1	10,000	
Advance from Customers	60,000 × 2 × .20	24,000	90,000
Working Capital			1,18,500

Working Note:

$$\text{Monthly Production \& Sales} = \frac{60,000}{12} = 5,000 \text{ units}$$

Monthly Cost

Raw Materials	5,000 × 5	= 25,000
Wages	5,000 × 3	= 15,000
Overheads	5,000 × 2	= 10,000
Sales	5,000 × 12	= 60,000

Illustration 7: From the following information provided by M/s. P & Co. Pvt. Ltd., prepare a statement showing working capital requirements for the year 2010-2011:

(a) Estimated sales for the year 2010-2011 ₹ 21,60,000.
(b) Estimated cost structure ratios to selling price: Raw materials 60%, Labour 20% and Overheads 10%.
(c) Selling price ₹ 20 per unit.
(d) Raw Materials remain in stock for 2 months.
(e) Materials remain in process for 1 month.
(f) Finished Goods remain in stock for 1 month.
(g) Customers are allowed 2 months credit.
(h) Suppliers allow 1 month credit.
(i) Time lag in payment of wages is one month.
(j) Time lag in payment of overheads is half month.
(k) Cash & Bank Balance is expected to be 25% of the Debtors.
(l) Provide a margin of safety at 10%.
(m) Debtors are to be calculated at selling price.
(n) During the manufacturing process labour and overheads accrue evenly.

Solution:

M/s P and Co. Ltd
Working Capital Estimate for 2010-11

		₹	₹
A. Current Assets			
Stock of Raw Materials	1,08,000 × 2		2,16,000
Stock of WIP			
RM	1,08,000 × 1	1,08,000	
Lab	36,000 × 1 × 50%	18,000	
OH	18,000 × 1 × 50%	9,000	1,35,000
Stock of Finished goods	1,62,000 × 1		1,62,000
Sundry Debtors	1,80,000 × 2		3,60,000
Cash and Bank	25% of 3,60,000		90,000
		9,63,000	
B. Current Liabilities			
Creditors	1,08,000 × 1	1,08,000	
O/s Wages	36,000 × 1	36,000	
O/s Overheads	18,000 × 0.5	9,000	1,53,000
Working Capital (A – B)			8,10,000
Add – Margin of safety			81,000
Total Working Capital			8,91,000

Working Note:

	₹	₹
Annual Budgeted Sates – 2010-11 in		21,60,000
Annual Budgeted Sales – 2010 - 11 in Units	$\frac{21,60,000}{20}$	1,08,000
Monthly Budgeted Sales in Units	$\frac{1,08,000}{12}$	9,000
Cost of RM per month	9,000 × 12	1,08,000
Cost of Labour per month	9,000 × 4	36,000
Cost of Overheads per month	9,000 × 2	18,000
Total Cost per month	9,000 × 18	1,62,000
Profit per month	9,000 × 2	18,000
Sales per Month	9,000 × 20	1,80,000

Illustration 8: From the following information given by M/s. Q & Co. Pvt. Ltd., prepare an estimate of Working capital for the year ended 31st March, 2011.

1. Estimated level of activity – 1,04,000 units for the year 52 weeks.
2. Cost of raw Material per unit – ₹ 5.
3. Cost of labour per unit – 40% of Raw Material
4. Cost of Overheads per unit – 50% of the labour cost
5. Profit per unit is 200% of overheads.
6. Stock of Raw materials – 4 weeks.
7. Processing period – 4 weeks.
8. Stock of Finished Goods – 4 weeks
9. Credit to the Debtors – 6 weeks
10. Credit by the Creditors – 4 weeks
11. Time lag in payment of wages – 4 weeks
12. Time lag in payment of overheads – 2 weeks
13. Cash and Bank Balance required – 40,000
14. Debtors are calculated on sales basis.
15. Purchases against cash – 20%
16. All the activities are spread evenly throughout the year.
17. During processing, Labour and Overhead accrue evenly.

Solution: **Working Capital Estimate for 2010 - 11**

Particulars	Working	₹	₹
A. Current Assets			
1. Stock			
(a) Raw Material	(10,000 × ₹ 4)		40,000
(b) Work-in-Progress			
– Raw Material	(10,000 × ₹ 4)	40,000	
– Labour	(4,000 × ₹ 4 × 50%)	8,000	
– Overheads	(2,000 × 4 × 50%)	4,000	52,000
(c) Finished Goods	(16,000 × ₹ 4)		64,000
2. Sundry Debtors	(20,000 × ₹ 6)		1,20,000
3. Cash and Bank Balance			40,000
Total Current Account			3,16,00
B. Less: Current Liabilities			
1. Creditors	(10,000 × ₹ 4 × 80%)	32,000	
2. Outstanding Wages	(4,000 × ₹ 4)	16,000	
3. Outstanding Overheads	(2,000 × ₹ 2)	4,000	
Total Current Liabilities			52,000
C. Estimated Working Capital (A – B)			2,64,000

Working Note:

Annual Budgeted Sales 2010-11 in units (1,04,000)

Weekly Budgeted Sales in units (1,04,000/52) = 2,000

	Per unit ₹	**₹**
Cost of Raw Materials per week	5	10,000
Cost of Labour per week	2	4,000
Cost of overheads per week	1	2,000
Total Cost per week	8	16,000
Profit per week	2	4,000
Sales per week	10	20,000

Illustration 9: The following information is presented by Data and Sons Ltd. for the year 2010-11.

Estimated Yearly Production = 30,000 units

Estimated Cost Sheet per unit.

	₹
Raw Materials	5
Wages	3
Overheads	2
Selling Price	12

Further Information:

1. The company extends two months credit to the customers.
2. The company maintains one month's stock of finished goods.
3. The company maintains two month's stock of finished goods.
4. The processing period is half a month.
5. The company is allowed one month's credit by suppliers.
6. Wages and Overheads are paid one month in arrears.
7. The cash and bank balance is expected to be ₹ 8,125.
8. There is regular purchase, production and sales cycle.
9. During production process wages and overheads acrrue evenly.
10. Debtors are to be calculated on sale price basis.

Prepare an estimate of working Capital.

Solution:

Data and Sons Ltd.

Estimate of Working Capital for the year 2010-11

			₹
Current Assets			
Stock of Raw Materials	2500 × 1 × 5		12,500
Stock of Finished Goods.	2500 × 2 × 10		50,000
Work-in-Process Materials	2500 × 0.5 × 5	6,250	
Wages	2500 × 0.5 × 3 × 0.5	1,875	
Overheads	2500 × 0.5 × 2 × 0.5	1,250	9,375
Debtors	2500 × 2 × 12		60,000
Cash and Bank	Given		8,125
Total		A	1,40,00
Current Liabilities			
Creditors	2,500 × 1 × 5		12,500
Outstanding Wages	2,500 × 1 × 3		7,500
Outstanding Overheads	2,500 × 1 × 2		5,000
Total		B	25,000
Working Capital		(A – B)	1,15,000

Working Note

Level of Activity $\frac{30,000}{12}$ = 2,500

Cost Sheet = RM 5 + W 3 + O/H 2 + P 2 = SP12

Illustration 10: The Management of Kaka Ltd. Has asked you to prepare an estimate showing the working capital requirement for 2010-11, along with estimated cost sheet.

Present position : 2009-10

Operating Capacity 40%, giving output of 40,000 units for the year:

Cost Structure per unit:

Raw Material	₹ 20
Direct labour	₹ 15
Overheads	₹ 10
Profit	₹ 5

Estimates for the next year 2010-11
Operating Capacity 60%
Cost Structure –
Raw Material cost to increase by 10%
Direct Labour cost to increase by 20%
Overheads to increase by 20%
Selling Price to increase by 20%

The following further information is available:

1. The purchase, production and sales pattern is assumed be even throughout the year.
2. The Raw Materials will remain in stock for 1 month.
3. The production process will take 1 month wherein labour and overheads will accrue evenly during the process.
4. The Finished Goods will remain in the stock for 2 months.
5. The Customers will be allowed a credit of 2 months.
6. The Suppliers will allow a credit of 1 month.
7. The time-lag in payment of labour will be 1 month.
8. The time-lag in payment of overheads will be half a month.
9. The Cash and Bank Balance is expected to be ₹ 25,000.
10. Calculate debtors on cost basis.
11. 20% of the purchase will be on cash basis.

Solution:

Kala Ltd.
Estimated Cost Sheet for the year 2010-11
Units for the Year = 60,000
Units for the Month = 5,000

Cost Sheet		**Per Unit ₹**
Raw Material	20 + 2	22
Direct Labour	15 + 3	18
Overheads	10 + 2	12
Total Cost		52
Profit		8
Selling Price	50 + 10	60

Estimate showing the Working Capital Requirement for the year 2010-11

		₹
Current Assets		
Raw Material Stock - (5,000 × 22)		1,10,000
Work in Process		
Raw Materials 5,000 × 22 × 1		1,10,000
Direct Labour - 5,000 × 18 × 1 × 50%		45,000
Overheads - 5,000 × 12 × 1 × 50%		30,000
Finished Goods - 5,000 × 52 × 2		5,20,000
Debtors - 5,000 × 52 × 2		5,20,000
Cash & Bank Balance Given		25,000
Total Current Assets	A	13,60,000
Current Liabilities		
Creditors - 5,000 × 22 × 1 × 80%		88,000
Outstanding D Labour - 5,000 × 18 × 1		90,000
Outstanding Overheads - 5,000 × 12 × 0.5		30,000
	B	2,08,000
Working Capital (A – B)		11,52,000

Illustration 11: The management of RT Ltd. has called for a statement showing the working capital need to finance a level of activity of 2,00,000 units of output for the year. The cost structure for the company's product for the above level of activity is (per unit):

Particulars (₹)	
Raw Materials	30
Direct Labour	15
Overhead (Including Depreciation @ ₹ 6 per unit)	15
Selling Price 80	

Other Information:

1. Minimum desired cash balance is ₹ 4,00,000.
2. Raw materials are held in stock, on an average for 1 month.
3. Work in progress (assume 50% completion stage) will appropriate to 1 month's production.
4. Finished goods remain in warehouse, on an average for 2 months.
5. Supplier of materials extend a months Credit and Debtors are provided 2 months credit. Cash sales are 20 sales and Credit purchase is 75% of purchases.
6. There is a time lag in payment of wages of half a month in case of overheads.

Prepare a statement of working capital requirement. **(T.Y. B.Com., Modified)**

Solution: **RT Ltd. Statement of Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash and Bank Balance			4,00,000
Stock-in-Trade:			
Raw Material	2,00,000 × 30 × 1/12	5.00,000	
Work-in-progress	2,00,000 × 50% (30 + 15 + 15) × 1/12	5,00,000	
Finished Goods	2,00,000 × 60 × 2/12	20,00,000	30,00,000
Debtors	2,00,000 × 80 × 80% × 1/12		21,33,333
Gross Working Capital			55,33,333
***Less:* Current Liabilities**			
Creditors	2,00,000 × 30 × 1/12 × 75%	3,75,000	
Outstanding Wages	2,00,000 × 14 × 1/12	2,50,000	
Outstanding Overheads (excluding depreciation)	2,00,000 × 9 × 0.5/12	75,000	
			7,00,000
Working capital			**48,33,333**

Illustration 12: HM Ltd. had an annual sale of 50,000 units at ₹ 100 per unit. The company works for 50 weeks in the year. The cost details of the company are as given below:

Particulars	**Rate per unit (₹)**
Raw Materials	200
Direct Labour	100
Overheads	150
Total	450
Profit	50
Selling Price	500

The company has the practice of storing raw materials for 2 weeks requirement. The wages and other expenses are paid bio weekly, i.e., by third week and fifth week for the first and second weeks and third and fourth weeks, respectively. Further the debtors enjoy a credit of 3 weeks and the same is available from suppliers. The processing time is 2 weeks and finished goods inventory is maintained for 4 weeks.

From the above information prepare a working capital estimate allowing for a 15% contingency.

(T.Y. B.Com., Modified)

Solution: **HM Ltd. Statement Showing the Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)	Amt. (₹)
Current Assets				
Stock-in-trade:				
Raw Materials	200 × 50,000 × 2/50	4,00,000		
Work-in-progress	(200 + 125) × 50,000 × 2/50	6,50,000		
Finished Goods	450 × 50,000 × 4/50	18,00,000	28,50,000	
Debtors	500 × 50,000 × 3/50		15,00,000	
Gross Working Capital				43,50,000
***Less:* Current liabilities**				
Creditors	200 × 50,000 × 3/50		6,00,000	
Outstanding Wages & Overheads	(100+150)×50,000×2/50		5,00,000	
				11,00,000
Working Capital				**32,50,000**

Notes: Work in progress is calculated 100% of Raw materials and 50% of Direct Labour and Overheads.

Illustration 13: From the following information prepare a statement of working capital requirement. Annual sale are estimated 3,00,000 units at ₹ 35 p.u. Production quantities coincide with sales and will be carried on evenly throughout the year and production cost is,

Materials	₹ 15 p.u.
Labour	₹ 8 p.u.
Expenses	₹ 5.75 p.u.

Customers are given 60 days credit and 50 days credit is taken from suppliers, 45 days supply of raw material and 30 days supply of finished goods are kept. Production cycle is 20 days and all materials is issued at the commencement of each production cycle. A cash balance equivalent to 1/3 of average of other working capital requirement is kept for contingency.

(T.Y. B.Com., Modified)

Solution: **Statement of Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash Balance	1/3 (16,23,288 + 17,26,027 – 6,16,438)		
Stock-in-trade:			
Raw Material	3,00,000 × 15 × 45/365	5,54,795	
Work-in-progress	3,00,000 × [15 + 50% (8 + 5.75)] × 20/365	3,59,589	
Finished Goods	3,00,000 × (15 + 8 + 5.75) × 30/365	7,08,904	16,23,288
Debtors	3,00,000 × 35 × 60/365		17,26,027
Gross Working Capital			42,60,274
***Less:* Current liabilities**			
Creditors	3,00,000 × 15 × 50/365		6,16,438
Working Capital			**36,43,836**

Note: Cash balance = 1/3 (Stock + Debtors – Creditors)

Illustration 14: From the following details you are required to make on assessment of required amount of working capital requirement of AB Ltd.

Particulars	Average Period of Credit	Estimate for the Year (₹)
Purchase of raw material	4 Weeks	13,00,000
Wages	1 Week	3,25,000
Outstanding:		
Rent, Rates and Taxes	3 months	50,000
Salaries	2 months	40,000
Overheads	1 month	80,000
Sales	Cash Basis	5,00,000
Credit sales	3 months	47,00,000
Average amount of stock and WIP		5,00,000
Average amount of undrawn profit		1,00,000

(T.Y. B.Com., Modified)

Solution: **AB Ltd. Statement of Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Stock and WIP (Given)			5,00,000
Debtors	47,00,000 × 3/12		11,75,000
Gross Working Capital			16,75,000
***Less:* Current liabilities**			
Creditors	13,00,000 × 4/52	1,00,000	
Outstanding Expenses:			
Wages	3,25,000 × 1/52	6,250	
Rent, Rates and Taxes	50,000 × 3/12	12.500	
Salaries	40,000 × 2/12	6,667	
Overheads	80,000 × 1/12	6,667	1,32,084
			15,42,916
Less: Undrawn Profit			1,00,000
Working Capital Required			**14,42,916**

Illustration 15: The cost sheet of BA Ltd. reveals the following information concerning with the proportion of various elements of cost to the selling price.

Materials 40%

Labour 30%

Overheads 10%

The management of the concern intends to maintain during 2014, production level of 2013, which was 24,000 units. The following further information is available.

1. Raw materials are expected to remain in store for an average period of 2 months before issue of production.
2. Each unit of production will be in process for 1 month on an average.
3. Finished goods are to be stayed in the ware house for 2 months on the average before being sold and sent to customers.
4. Credit allowed by the suppliers from the date of delivery of materials is 1 month.
5. Debtors are allowed 2 months credit from the date of the sale of the goods.

6. The selling price is ₹ 100 per unit.

Production and sale is even throughout the year. **(T.Y. B.Com., Modified)**

Solution: **BA Ltd. Statement of Working Capital Required during 2014**

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Stock-in-trade:			
Raw Materials	24,000 × 40 2/12	1,60,000	
Work-in-progress	24,000 × (40 + 50% (30 + 10) × 1/12	1,20,000	
Finished Goods	24,000 × 80 × 2/12	3,20,000	6,00,000
Debtors	24,000 × 100 × 2/12		4,00,000
Gross Working Capital			10,00,000
***Less:* Current Liabilities**			
Creditors	24,000 × 40 × 1/12		80,000
Net Working Capital Required			**9,20,000**

Working Note:

1. Cost p.u.

   Raw material = 40% of S.P. of ₹ 100 = 40

   Labour = 30% of S.P. = 30

   Overheads = 10% = 10

Illustration 14: A Ltd. Manufactured and sold 30,000 machines in the year 2008 at 100% capacity. Following information is available for the same year.

Materials	₹ 7,50,00,000	Labour	3,00,00,000
Sales	₹ 15,00,00,000	Gross Profit	20% on Sales

Due to slow down in economy the company has decided to reduce its production to 50% of its capacity during the year 2009.

It is estimated that.

(a) Price of Raw material will be reduced by 10% per unit.

(b) Wages will be reduced by 20% per unit.

(c) Overheads will be increased by 10% per unit.

(d) Selling price per unit to be estimated to maintain profit on sales at 20%

Additional informations for the year 2009.

1. Raw material will remain in stock for one month.
2. Finished goods will remain in wearhouse for 2 months.
3. Customers (at selling price) will enjoy one month credit.
4. Suppliers will allow 2 months credit.
5. Time lag in payment of wages and overheads will be 1 month.
6. Processing period one month.
7. Cash and bank balance should be ₹ 30,00,000.

You are required to forcast working capital requirement for the year 2009.

Solution: **Statement of Cost (30,000 Machines) for the year**

	2008		2009		
	Total ₹	Per Unit ₹	Revised		Per Unit
Materials	7,50,00,000	2,500	2,500 – 10%	=	2,250
Labour	3,00,00,000	1,000	1,000 – 20%	=	800
Overheads	1,50,00,000	500	500 + 10%	=	550
Total Cost	12,00,00,000	4,000			3,600
Profit	3,00,00,000	1,000			900
Sales	15,00,00,000	5,000			4,500
Sales	100				
Profit 20%	20				
Cost	80				

Selling Price = $\frac{100}{80} \times 3{,}600 = 4{,}500$

Cost Statement for the year 2009
15,000 Machines

	₹	₹
Materials	15,000 × 2,250	3,37,50,000
Labour	15,000 × 800	1,20,00,000
Overheads		82,50,000
Total		5,40,00,000
Profit		1,35,00,000
Sales		6,75,00,000

Forecast Working Capital Requirement for the year 2009

		₹	₹
Current Assets			
Stock of Raw Materials	$2{,}250 \times 15{,}000 \times \frac{1}{12}$	28,12,500	
Stock of WIP:			
Materials	$15{,}000 \times 2{,}250 \times \frac{1}{12}$	28,12,500	
Labour	$15{,}000 \times 800 \times \frac{1}{12} \times \frac{1}{2}$	5,00,000	
Overheads	$15{,}000 \times 550 \times \frac{1}{12} \times \frac{1}{2}$	3,43,750	36,56,250
Stock of Finished Goods:			
Materials	$15{,}000 \times 2{,}250 \times \frac{2}{12}$	56,25,000	
Labour	$15{,}000 \times 800 \times \frac{2}{12}$	20,00,000	
Overheads	$15{,}000 \times 550 \times \frac{2}{12}$	13,75,000	90,00,000
Cash & Bank balance		30,00,000	
Debtors		$\frac{6{,}75{,}00{,}000}{12}$	56,25,000
			2,40,93,750
Less: **Current Liabilities:**			
(i) Suppliers	$2{,}250 \times 15{,}000 \times \frac{1}{12} \times 2$	56,25,000	

(ii) Lag in Payment			
Wages	$15{,}000 \times 800 \times \frac{1}{12}$	10,00,000	
Overheads	$15{,}000 \times 550 \times \frac{1}{12}$	6,87,500	73,12,500
			1,67,81,250

Illustration 15: Prepare a working capital requirement of M/s F Ltd.

1. All activities of business are centralised at one place only.
2. The management of the company has decided to keep ₹ 25,000 cash in hand for all business contingencies and requirements.
3. Production during the previous year was 60,000 units and selling price p.u. was ₹ 40.
4. The same level of activity is intended to be maintained during the current year. However, selling price p.u. is estimated at 25% more than previous year.
5. The expected elements of cost to selling price are:

Raw material	55%
Wages	16.50%
Overhead	20%

6. The raw materials normally remain in stores for 1½ months before production.
7. Every unit of production remains in production process for 1 month.
8. Finished goods remain in warehouse for 2 months.
9. 20% of raw material requirements are obtained from a subsidiary company on 4 months credit and 60% from the suppliers by making 2 months advance payment. Balance are purchased on cash basis.
10. All sales are on cash against delivery basis except one special customer (who is lifting 50% of the sales turnover) to whom 3 months credit is extended.
11. Time lag in payment of wages and overhead is 1 month. **(T.Y. B.Com., Modified)**

Solution:

Production 60,000 units p.a.

Selling price = (40 + 25%) = 50 p.u.

Cost per unit:

		(₹)
Raw material	55% of ₹ 50	27.50
Wages	16.50% of ₹ 50	8.25
Overhead	20% of ₹ 50	10.00
		45.75

M/s F Ltd. Statement of Working Capital Requirement

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash in hand		25,000	
Raw materials	60,000 × 27.50 × 1/5/12	2,06,250	
Work-in-progress	60,000 × [27.50 + 50% (8.25 + 10)] × 1/12	1,83,125	
Finished Goods	60,000 × 45.75 × 2/12	4,57,500	8,46,875
Advance to Supplier	60% × 60,000 × 50 × 3/12		1,65,000
Debtors	50% × 60,000 × 50 × 3/12		3,75,000
Gross Working Capital			14,11,875

Less: **Current Liabilities**			
Creditors	20% × 60,000 × 27.50 × 4/12	1,10,000	
Outstanding Wages and Overhead	60,000 × (8.25 + 10) × 1/12	91,250	
			2,01,250
Working Capital			**12,10,625**

Illustration 16: Production of a company during the previous year was 25,000 units. The same level of activity is intended to be maintained during the current year:

The expected ratios of cost to selling price:

Raw material = 45%, Direct wages = 15% and Overhead = 20%

The raw materials ordinarily remain in stock for 1 month before production. Every unit of production remain in the process for 1½ months and is assumed to be consisting of 100% raw material and wages and overheads. Finished goods remain in warehouse for 2 months. Credit allowed by the creditors is 2 months from the date of delivery of raw materials and credit given to debtors is 2½ months from the dispatch.

Estimated balance of cash	₹ 50,000
Lag in payment of wages	1/2 month
Lag in payment of expenses	1/2 month

Selling price is ₹ 25 per unit. Both production and sales are in a regular cycle. You are required to make a provision of 10% for contingency. (Except cash) **(T.Y. B.Com., Modified)**

Solution:

Cost per unit:

		(₹)
Raw Materials	45% of ₹ 25	11.25
Direct Wages	15% of ₹ 25	3.75
Overhead	20% of ₹ 25	5.00
Total cost		**20.00**

Statement of Working Capital Requirement

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash and Bank Balance			50,000
Stock-in-trade:			
Raw Materials	25,000 × 11.25 × 1/12	23,438	
Work-in-progress	25,000 × 20 × 1.5/12	62,500	
Finished Goods	25,000 × 20 × 2/12	83,333	1,69,271
Debtors	25,00,000 × 25 × 2.5/12		1,30,208
Gross Working Capital			3,49,479
Current Liabilities			
Creditors	25,000 × 11.15 × 2/12	46,875	
Outstanding Wages	25,000 × 3.75 × 0.5/12	3,906	
Outstanding Overheads	25,000 × 5 × 0.5/12	5,208	
			55,989
Working capital			**2,93,490**
Add: Contingency (10% of Working capital except cash)			24,349
Net Working Capital			**3,17,839**

* Contingency = 10% of (293,490 – 50,000)

Illustration 17: Tata Manufacturing Co. started for production of NANO cars at Calcutta in March 2008 and purchased Land for ₹ 10,00,000 and incurred ₹ 5,00,000 on its factory construction. However before production was started due to labour problems the Company has shifted its factory to Maharashtra, where it had benefit of low overheads. Overheads are 50% of labour expenses in Maharashtra.

Following is cost structure per car in Maharashtra for the year 2009-10.

Steel	50 kgs @ ₹ 1,000 per kg.
Spare Parts	10 kgs @ ₹ 200 per kg.
Engine	1 Engine @ ₹ 20,000 per engine.
Labour Charges	100 Hrs. @ ₹ 20 per hour.

From the following additional information calculate Working Capital requirement for the company to be started in Maharashtra for the year 2009-10.

1. Steel remains in stock for 2 months, Spare parts remain in stock for 1 month and Engine for 6 months.
2. Suppliers of Steel allow credit for 1 month, suppliers of Spare Parts allow credit for 15 days and suppliers of Engine allow credit for 2 months.
3. Time lag for payment of Labour and Overhead is 1 month
4. Cars will be in stock for 15 days after production.
5. Production Cycle is for 1 Month.
6. Estimated Production during year 2009-10 will be 5,000 NANO cars.

Solution: **Statement of Working Capital for the year 2009-10**

	₹	₹
Current Assets		
Stock of Materials		
Steel $\frac{25,00,00,000}{12} \times 2$	4,16,66,666.67	
Spare $\frac{1,00,00,00\ 0}{12} \times 1$	8,33,333.33	
Engine $\frac{10,00,00,00}{12} \times 6$	5,00,00,000.00	9,25,00,000
Stock of W.I.P.		
Steel $\frac{25,00,00,0\ \ 00}{12}$	2,08,33,333.33	
Spare $\frac{1,00,00,00\ \ 0}{12}$	8,33,333.33	
Engine $\frac{10,00,00,000}{12}$	83,33,333.33	
Labour $\frac{1,00,00,00}{12} \times \frac{1}{2}$		4,16,666.67
Overheads $\frac{50,00,000}{12}$	2,08,333.33	3,06,25,000
Finished Goods		
$\frac{37,50,0,00\ \ 0}{12} \times \frac{1}{2}$		1,56,25,000
(a)		13,87,50,000
Less: Current Liabilities		
Creditors		
Steel $\frac{25,00,00,0\ \ 00}{12}$	2,08,33,333.33	

Spare $\frac{1,00,00,00\ 0}{12} \times \frac{1}{2}$		4,16,666.67	
Engine $\frac{10,00,00,0\ 00}{12} \times 2$		1,66,66,666.67	3,79,16,666.67
Outstanding			
Labour $\frac{1,00,00,00\ 0}{12}$		8,33,333.33	
Overheads $\frac{50,00,000}{12}$		4,16,666.67	12,50,000.00
	(b)		3,91,66,666.67
Working Capital			9,95,83,333.33

Working Note

Cost Statement

Material:

Steel 50 kgs. @ ₹ 1,000	=	50,000
Spare 10 kgs. @ ₹ 200	=	2,000
Engine 1 × 20,000	=	20,000
		72,000
Labour 100 hrs. @ ₹ 20 per hr.	=	2,000
Overheads 50% of Labour	=	1,000
Cost per Car		75,000

Yearly Cost for 5,000 units:

Materials:

Steel 50,000 × 5,000	25,00,00,000
Spare 2,000 × 5,000	1,00,00,000
Engine 20,000 × 5,000	10,00,00,000
Labour 2,000 × 5,000	1,00,00,000
Overheads 50% of Labour	50,00,000
	37,50,00,000

Illustration 18: From the following information prepare a statement of working capital requirement for the month of February 2015.

Raw material cost	₹ 1 p.u.
Overhead	₹ 18,000 p.a.
Labour	60 paise p.u.
Output and sale	6,000 units p.m.
Selling price	₹ 6 p.u.

Stocks to be carried:

Raw material — 3 weeks production

Finished goods — 4 weeks supply

The debtors on an average take $2^1/_4$ months credit. Raw materials are received in uniform deliveries daily and suppliers have to be paid at the end of the month goods are received.

Other expense creditors allow on average of 2 weeks credit.

Solution:

Cost per unit

	(₹)
Raw Material Cost	1.00
Overhead (l8,000/12 = 1,500 p.m. 1,500/6,000)	0.25
Labour	0.60
Total Cost	**1.85**

Statement of Working Capital Requirement for the Month of February 2015

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Stock-in-trade:			
Raw Materials	6,000 × 1 × 34	4,500	
Finished Goods	6,000 × 1.85 × 4/4	11,100	15,600
Debtors	6,000 × 6 × 2.25		81,000
Gross Working Capital			96,600
***Less:* Current Liabilities**			
Creditors (WN 1)	6,000 × 1 × 15/29	3,103	
Creditors for Expenses	6,000 × (0.25 + 0.60) × 2/4	2,550	
			5,653
Working Capital			**90,947**

Working Note:

1. Raw materials are received daily and paid at the end. So, materials purchased on first day will be paid on last day of month = 29 days credit
   Materials purchased on second day and paid on last day = 28 days credit
   So, average 15 days taken
   February 2015 has 29 days

Illustration 19: You are required to calculate working capital requirements for M/s. A Ltd. from the following details.

1. Average amount locked up in stock:
   Finished goods ₹ 3,500 p.a.
   Raw materials ₹ 36,000 p.a.
2. Average credit given:
   For inland sales 1½ months credit ₹ 18,00,000 p.a.
   For export sales 2 months credit ₹ 6,00,000 p.a.
3. Lag in payment of wages and other expenses:

Wages	1/2 month	₹ 3,12,000 p.a.
Rent, Royalties etc.	4 months	₹ 1,20,000 p.a.
Salary to Clerical staff	1/2 month	₹ 84,000 p.a.
Salary to Managers	1 month	₹ 96,000 p.a.
Miscellaneous expenses	1 month	₹ 2,000 p.m.

4. Advance payment:
   Advertisement quarterly ₹ 6,000 p.a.
5. Undrawn profits on the average throughout the year ₹ 19,500

(T.Y. B.Com., Modified)

Solution: **M/s A Ltd. Statement of Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Stock-in-trade:			
Raw materials		36,000	
Finished Goods		3,500	39,500
Debtors			
Inland Debtors	18,00,000 × 1.5/12	2,25,000	
Export Debtors	6,00,000 × 2/12	1,00,000	3,25,000
Prepaid Advertisement	6,000 × 1/4		1,500
Gross Working Capital			**3,66,000**
***Less:* Current liabilities**			
Outstanding Expenses:			
Wages	3,12,000 × 0.5/12	13,000	
Rent, Royalties	1,20,000 × 4/12	40,000	
Salary to Clerical Staff	84,000 × 0.5/12	3,500	
Salary to Managers	96,000 × 1/12	8,000	
Miscellaneous Expenses	2,000 × 12 × 1/12	2,000	66,500
			2,99,500
Less: Undrawn Profits			19,500
Working Capital			**2,80,000**

Illustration 20: A company intend to manufacture a product. The estimates of the proposed business are:

1. Expected monthly sales ₹ 70,000
2. Estimated rate of profit on cost 25%
3. Fixed overheads are estimated to be ₹ 72,000 p.a.
4. Variable overheads are expected to be 10% of sales.
5. Wages amount to ₹ 15,000 p.m.
6. Stock turnover is 2 times a month
7. Debtors turnover is 1 time a month
8. 70% of purchases and 75% of sales will be estimated to be made on credit
9. There will be a lag of payment of 1/2 month for fixed and variable overheads
10. Labour expenses will be outstanding for a month
11. Supplier will extend credit of 1½ months.

Estimate the working capital requirement of a firm. **(T.Y. B.Com., Modified)**

Solution:

Sales = ₹ 70,000 p.m.

Profit = 25% on cost

Cost + Profit = Sales

100 + 25 = 125

S	C
125	100
70,000	(?)

Total cost = ₹ 56,000 p.m.

Cost per month:

		(₹)
Fixed Overheads	72,000/12	6,000
Variable Overheads	10% of 70,000	7,000
Wages		15,000
Material	(Balance)	28,000
Total Cost (as above)		**56,000**

1. Stock turnover = 2
   Cost of sales/Stock = 2
   56,000/Stock = 2
   Stock = 28,000
2. Debtors turnover = 1
   Credit sales/Debtors = 1
   (75% × 70,000)/Debtors = 1
   Debtors = 52,500
3. Outstanding fixed overhead
   = 6,000 × 0.5
   = 3,000
4. Outstanding variable overhead
   = 7,000 × 0.5
   = 3,500
5. Outstanding labour expenses
   = 15,000 × 1
   = 15,000
6. Creditors
   = 28,000 × 1.5
   = 42,000

Statement of Working Capital Requirement

Particulars	Amt. (₹)	Amt. (₹)
Current Assets		
Stock		28,000
Debtors		52,500
Gross Working Capital		80,500
***Less:* Current Liabilities**		
Creditors	42,000	
Outstanding Expenses:		
Fixed Overhead	3,000	
Variable Overhead	3,500	
Labour Expenses	15,000	
		63,500
Working Capital		**17,000**

Illustration 21: DT Ltd. has an installed capacity of 7,500 units p.m. So far it was operating at 75% of its normal capacity. From the information given below calculate the working capital requirement for the available capacity. Raw material ₹ 8 per unit, Direct Labour ₹ 4 per unit and Overheads are 100% of Direct Labour. Profit per unit is 1/6 selling price.

Raw materials storage period is 2 months. Processing time is 1/2 months. Finished goods in stores are for 3 months. Credit to debtors is for 2 months. Credit by creditors is for 1/2 month. Lag in wage payment is 1 month.

Production and Overheads accrue evenly throughout the year. **(T.Y. B.Com., Modified)**

Solution:

Production = 7,500 × 12 = 90,000 units p.a.

Cost per unit:

	(₹)
Raw Materials	8
Direct Labour	4
Overheads (100% of Direct Labour)	4
Total Cost	16
Profit	3.20
Selling Price	**19.20**

Profit = 1/6 of selling price

If selling price = x

P = $x/6$

Total cost + Profit = Sales

$$16 + x/6 = x$$
$$(96 + x)/6 = x$$
$$96 + x = 6x$$
$$96 = 5x$$
$$x = ₹\ 19.20$$

Selling price = 19.20 per unit.

DT Ltd. Statement of Working Capital Requirement

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Stock-in-Trade:			
Raw Materials	90,000 × 8 × 2/12	1,20,000	
Work-in-Progress	90,000 × [8 + 50%(4 + 4)] × 1.5/12	1,35,000	
Finished Goods	90,000 × 16 × 3/12	3,60,000	6,15,000
Debtors	90,000 × 19.20 × 2.12		2,88,000
Gross Working Capital			9,03,000
***Less:* Current liabilities**			
Creditors	90,000 × 8 × 0.5/12	30,000	
Outstanding Wages	90,000 × 4 × 1/12	30,000	
			60,000
Working Capital			**8,43,000**

Illustration 22: KG Associates intend to manufacture electric tube lights. The estimates of the proposed business are:

(i) Expected annual sales ₹ 8,00,000.

(ii) Estimated rate of profit on cost of goods sold 25%.

(iii) Fixed expenses are estimated to be ₹ 15,000 per month and variable administration and selling expenses are expected to be 10% of his turnover. There will be a lag of payment of 1 month for both fixed and variable expenses.
(iv) Labour expenses amount to ₹ 8,000 per month and will be outstanding for 1½% months.
(v) Stock turnover is 4 times a year.
(vi) Debtors turnover is 4 times a year.
(vii) It is estimated that 70% of the purchases and 80% of sales will be made on credit. Purchases will be on one month's credit.
(viii) Sales and purchases will be evenly spread throughout the year.

Estimate the working capital requirements of firm. **(T.Y. B.Com., Modified)**

Solution:

Sales = 8,00,000

Profit = 25% on cost

Cost + Profit = Sales

S		C
125	:	100
8,00,000	:	(?)

Total cost = 6,40,000

Fixed Expenses = 15,000 × 12 = 1,80,000

Variable Administrative and Selling Expenses = 10% of sales of 8,00,000 = 80,000

Labour = 8,000 × 12 = 96,000

Materials = Total cost – Fixed Expenses – Variable Administrative and Selling Expenses – Labour

Materials = 6,40,000 – 1,80,000 – 80,000 – 96,000 = 2,84,000

(i) Outstanding fixed expenses = 1,80,000 × 1/12 = 15,000
(ii) Outstanding variable administrative and selling expenses = 80,000 × 1/12 = 6,667
(iii) Outstanding labour charges = 96,000 × 1.5/12 = 12,000
(iv) Stock turnover ratio = 4

Cost of sales/Stock = 4

6,40,000/4 = Stock

Stock = 1,60,000

(v) Debtors Turnover Ratio = 4
Credit sales/Debtors = 4
80% × 8,00,000/4 = Debtors
Debtors = 1,60,000
(vi) Creditors = 2,84,000 × 70% × 1112 = 16,567

Statement of Working Capital Requirement

Particulars	Amt. (₹)	Amt. (₹)
Current Assets		
Closing Stock	1,60,000	
Debtors	1,60,000	
Gross Working Capital		3,20,000
***Less:* Current Liabilities**		
Creditors	16,567	
Outstanding Expenses		
Fixed Expenses	15,000	

Variable Administrative and Selling Expenses	6,667	
Labour Charges	12,000	
		50,234
Working Capital		**2,69,766**

Illustration 23: From the following information, you are required to prepare a statement of working capital requirement.

Particulars	Amt. (₹)	Amt. (₹)
Budget Sales		15,00,000
***Less:* Expenses:**		
Cost of raw materials	6,60,000	
Direct Labour	3,60,000	
Overheads (Including Depreciation of ₹ 60,000)	1,80,000	12,00,000
Profit		**3,00,000**

It is estimated that:

(i) Raw materials are carried in stock for 30 days and finished goods for 15 days only.

(ii) The production cycle takes 45 days.

(iii) 45 days credit is granted both for purchase and sale.

(iv) Creditors for overheads are paid after 15 days.

(v) Cash on hand is estimated to be 10% of Net working capital after considering cash on hand (Total days in a year to be considered 360). **(T.Y. B.Com., Modified)**

Solution: **Statement of Working Capital Requirement**

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash and Bank Balance			35,694
Stock-in-trade:			
Raw Material	6,60,000 × 30/360	55,000	
Work-in-progress	[6,60,000 + 50% (3,60,000 + 1,80,000)] × 45/360	1,16,250	
Finished Goods	12,00,000 × 15/360	50,000	2,21,250
Debtors	15,00,000 × 45/360		1,87,500
Gross Working Capital			4,44,444
Current Liabilities			
Creditors	6,60,000 × 45/350	82,500	
Outstanding Overheads (excluding depreciation)	1,20,000 × 15/360	5,000	87,500
Working Capital			**3,56,944**

Working Note:

Cash and Bank Balance = 10% of Working Capital

Working Capital = Current Assets + Cash and bank – Current liabilities

$x = 321{,}250 + 0.10x$

$x - 0.10x = 3{,}21{,}250$

$0.90x = 3{,}21{,}250$

$x = 3{,}56{,}944$

Working capital = 3,56,944

Cash and bank = 10% of 3,56,944

Cash and bank balance = 35,694

Illustration 24: You are required to prepare a statement showing the working capital required to finance the level of activity of 12,000 Units per year from the following information:

1. Raw materials are in stock on an average for 2 months.
2. Materials are in process on an average for half a month.
3. Finished goods are in stock on an average for one month.
4. Credit allowed by the suppliers is 1 1/2 months of purchase of raw materials and credit allowed to the customers is 21/2 months.
5. Lag in payment of wages and overheads is one month.
6. Cash and Bank balance is expected to be 10% of Net Working Capital before considering the Cash and Bank balance.
7. Activities are spread evenly throughout the year.

Cost per unit:	₹
Raw material	10
Wages	5
Total cost	30

Profit is 20% on selling price.

Solution: **Cost Statement of 12,000 Units per Year**

	Per Unit ₹	Per Year ₹	Per Month ₹
Element of Cost			
Raw Materials	10.00	1,20,000	10,000
Wages	5.00	60,000	5,000
Overheads	15.00	1,80,000	15,000
Cost of Production	30.00	3,60,000	30,000
Profit (25% on Cost)	7.50	90,000	7,500
Selling Price	37.50	4,50,000	37,500

Working Capital Requirement for the year

			₹	₹	₹
I. Current Assets Stocks					
Raw Material	10,000	2.00		20,000	
Work-in-progress					
(a) Materials	10,000	0.50	5,000		
(b) Labour	5,000	0.25	1,250		
(c) Overheads	15,000	0.25	3,750	10,000	
Finished Goods @ COP	30,000	1.00		30,000	
60,000					
Debtors (at SP)	37,500	2.50		93,750	
					1,53,750
II. Less: Current Liabilities					
Creditors	10,000	1.50		15,000	
Outstanding Wages	5,000	1.00		5,000	
Outstanding Overheads	15,000	1.00		15,000	
Total Current Liabilities					35,000
Net Working Capital = I - II					1,18,750
Add: **Cash & Bank**	1,18,750 × 10%				11,875
Working Capital Requirement					1,30,625

Illustration 25: Z Ltd. sells its goods in domestic as well as in foreign market. Domestic selling prices are at 25 gross profit on sales and export prices are 10% below the domestic prices. Following are the estimated annual figure for the next year.

Particulars	Amt. (₹)	Amt. (₹)
Sales:		
Domestic	5,40,000	
Export	1,80,000	7,20,000
Material Consumption		2,91,000
Wages (Time Lag 1 month)		1,72,000
Manufacturing Expenses (1 month in arrears)		68,000
Depreciation on Assets		24,000
Administrative Expenses (1 month in arrears)		80,000
Sales Promotion Expenses (1 month in advance)		40,000

The company maintains 2 months stock of raw materials and 1½ months stock finished goods and cash balance ₹ 40,000. Domestic customers are allowed 3 months credit and foreign customers get 2 months credit. Suppliers extend credit for 2 months. Ascertain the funds required as Working Capital on above estimates keeping an additional 10% as a safety margin. **(T.Y. B.Com., Modified)**

Solution: Calculation of cost:

Export sales = 1,80,000 = 90%
100% = 2,00,000
Total sales = 5,40,000 + 2,00,000 = 7,40,000
Gross Profit = 25% of sales = 1,85,000
Cost of sales = Sales – Gross profit
Cost of sales = 7,40,000 – 1,85,000
Cost of sales = 5,55,000

Total cost can be calculated as under:

Material	2,91,000
Wages	1,72,000
Manufacturing expenses	68,000
Depreciation	24,000
	5.55,000

Z Ltd. Statement of Working Capital Requirement

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash Balance			40,000
Stock-in-Trade:			
Raw Material	2,91,000 × 2/12	48,500	
Finished Goods	5,55,000 × 1.5/12	69,375	1,17,875
Debtors			
Foreign	1,80,000 × 2/12	30,000	
Domestic	5,40,000 × 3/12	1,35,000	1,65,000
Advance Sales Promotion Expenses	40,000 × 1/4		10,000
Gross Working Capital			3,32,875
***Less:* Current Liabilities**			
Creditors	2,91,000 × 2/12	48,500	
Outstanding Expenses:			

Wages	1,72,000 × /12	14,333	
Manufacturing Expenses	68,000 × 1/12	5,667	
Administrative Expenses	80,000 × 1/12	6,667	75,167
Working Capital			2,57,708
Add: 10% of Safety Margin			25,771
Net Working Capital			**2,83,479**

Illustration 26: A company plans to manufacture and sell 400 units of domestic appliances per month at price of ₹ 600 each for the calendar year 2009. The ratio of costs to selling price are as follows:

Particulars	% of Selling Price
Raw Material	30
Packing Material	20
Direct Labour	15
Direct Expenses	5

Fixed overheads are estimated at ₹ 4,32,000 per annum.

Stock were maintained as per following:

Raw Material	30 Days
Packing Material	15 Days
Working-in-progress	7 Days
Finished Goods	200 Units

Following additional information is given:

1. Credit sales represent 80% and customers enjoy 30 working days credit. Balance 20% are cash sales.
2. Creditors allow 21 working days credit for payment.
3. Lag in payment in overhead and expenses is 15 working days.
4. Cash requirements to be 12% of net working capital excluding cash.
5. Working days in a year are taken as 300.

Prepare working capital requirement for the year 2009.

Solution:

Level of activity per month = 400 units

∴ Level of activity per annum = 4,800 units (300 Working days)

Cost Sheet for Year 2009

Particulars	(A) %	(B) Per Unit	(C) = B × 4,800 Per Annum ₹	(D) = C/300 Per Days ₹
Raw Material	30	180	8,64,000	2,880
Packing Material	20	120	5,76,000	1,920
Direct Labour	15	90	4,32,000	1,440
Direct Expenses	5	30	1,44,000	480
Fixed Overheads	-	90	4,32,000	1,440
Total Cost		510	24,48,000	8,160
Add: Profit	-	90	4,32,000	1,440
Sales	100	600	28,80,000	9,600

Estimate of Working Capital for the year 2009

		₹	₹	₹
A. Current Assets				
1. Stock				
(a) Raw Material	(2,880 × 30)		86,400	
(b) Packing Material	(1,920 × 15)		28,800	
(c) **Work-in-progress**				
Raw Material	(2,880 × 7)	20,160		
Packing Material	(1,920 × 7)	13,440		
Direct Labour	(1,440 × 7 × 50%)	5,040		
Direct Expenses	(480 × 7 × 50%)	1,680		
Fixed Overheads	(1,440 × 7)	10,080	50,400	

(d) Finished Goods	(200 × 510)		1,02,000	2,67,600
2. Debtors	(9,600 × 80% × 30)			2,30,400
3. Cash	(3,46,800 × 12%) (WN – 1)			41,616
				5,39,616
B. ***Less:* Current Liabilities**				
1. Creditors	(2,880 × 21)	60,480		
	(1,920 × 21)	40,320	1,00,800	
2. Outstanding Expenses				
Overheads	(1,440 × 15)	21,600		
Expenses	(480 × 15)	7,200		
Labour	(1,440 × 15)	21,600	50,400	
				1,51,200
C. Estimated Working Capital (A - B)				3,88,416

Working Note

1. Cash Balance

	₹
Current Asset (Excluding Cash)	4,98,000
Less: Current Liabilities	1,51,200
Working Capital (Excluding Cash)	3,46,800
Add: Cash 12%	41,616
Working Capital (Including Cash)	3,88,416

Illustration 27: The data of ABC Ltd. is as under:

Production for the year	33,000 units
Finished Goods Inventory	2 months
Raw Material Inventory	1 month
Production Process	1½ months
Credit allowed by Creditors	1 month
Credit given to Debtors	2 months
Selling Price per unit	₹ 145
Raw Material	40% of Selling Price
Direct Wages	20% of Selling Price
Overheads	20% of Selling Price

Wages and Overheads accrue evenly. Wages are paid in the next month of accrual. Material is introduced in the beginning of production cycle. Work-in-process involves full unit of raw material in the beginning of manufacturing process and other costs equivalent to 50%. The Cash and Bank balance will be 10% of net working capital requirement before Cash/Bank Balance. Prepare statement of working capital requirement.

(T.Y. B.Com., Modified)

Solution: **Cost per unit:**

		(₹)
Raw Materials	40% of Selling Price of ₹ 145	58
Wages	20% of Selling Price of ₹ 145	29
Overheads	20% of Selling Price of ₹ 145	29
		116

ABC Ltd. Statement of Working Capital Requirement

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash and Bank Balance			17,463
Stock-in-Trade:			
Raw Material	33,000 × 58 × 1/12	1,59,500	
Work-in-Progress	33,000 × [58 + 50% (29 + 29)] × 1.5/12	3,58,875	
Finished Goods	33,000 × 116 × 2/12	6,38,000	11,56,375
Debtors	33,000 × 145 × 2/12		7,87,500
Gross Working Capital			21,25,338
***Less:* Current Liabilities**			
Creditors	33,000 × 58 × 1/12	1,59,500	
Outstanding Wages	33,000 × 29 × 1/12	79,750	
			2,39,250
Working Capital			**18,86,088**

Cash and bank balance = 10% of net working capital before Cash and Bank Balance
= 10% (1,59,500 + 3,58,875 + 6,38,000 + 7,97,500 – 2,39,250)
= 1,71,400

Illustration 28: From the following information prepare a statement of working capital requirements of Z Ltd.

Sales to customers	₹ 7,20,000 p.a. (cost plus 20%)
Sales to retailers	₹ 6,00,000 p.a. (cost plus 25%)
Sales to wholesalers	₹ 4,60,000 p.a. (cost plus 15%)

Raw materials and Labour is 50% and 30% of the total cost. Raw materials remain in stores for 12 months. Processing period is 1 month. Finished goods remain in stores for 2 months. Almost 80% sales to customers are on cash basis and credit allowed to customers is 1 month. Sales to retailers take 1½ months for realisation. Credit allowed to wholesalers is 2 months. Suppliers for raw materials extend 1 month credit. Minimum Cash and Bank Balance is 10,000. Margin for safety is 5%. Almost 20% sales to retailers are on cash basis. **(T.Y. B.Com., Modified)**

Solution:

1. Sales to customers at cost plus 20%

Sales = 120 = 7,20,000		
Cost = 100 = (?)		6,00,000
Sales to retailers at cost plus 25%		
Sales = 125	=	6,00,000
Cost = 100 = (?)		4,80,000
Sales to wholesaler at cost plus 15%		
Sales = 115	=	4,60,000
Cost = 100 = (?)		4,00,000
Total cost		**14,80,000**

2. Raw Material = 50% of cost

= 50% × 14,80,000	=	7,40,000
Labour = 30% of cost	=	4,44,000
Overheads = 25% of cost	=	2,96,000

Z Ltd. Statement of Working Capital Requirement·

Particulars		Amt. (₹)	Amt. (₹)
Current Assets			
Cash and Bank Balance			10,000
Stock-in-trade:			
Raw Material	7,40,000 × 1.5/1 2	92,500	
Work-in-progress	[7,40,000 + 50%(4,44,000 + 2,96,000)] × 1/12	92,500	
Finished Goods	14,80,000 × 2/12	2,46,667	4,31,667
Debtors:			
Customers	20% × 7,20,000 × 1/12	12,000	
Retailers	80% × 6,00,000 × 1.5/12	60,000	
Wholesales	4,60,000 × 2/12	76,667	1,48,667
Gross Working Capital			5,90,334
Less: **Current Liabilities**			
Creditors	7,40,000 × 1112		61,667
Working Capital			5,28,867
Add: 5% of Safety Margin			26,443
Net Working Capital			**5,55,310**

Illustration 29: Amruta Enterprises (having installed capacity of 2,00,000 units p.a.) produced 1,00,000 units in the financial year 2008-2009. The cost-structure in 2008-2009 was as under:

(a)	Raw Materials	200	40%
(b)	Wages	75	15%
(c)	Factory Overheads	50	10%
(d)	Administrative and Selling Overheads	75	15%
	Total Cost	400	80%
(e)	Profit	100	20%
	Selling Price	500	100%

The selling price, which was ₹ 500 per unit in 2008-09, is estimated to be fixed as at ₹ 600 per unit for the year 2009-2010; and production and sale expected to increase by 40,000 units. Its is, further, anticipated that raw materials cost per unit would increase by 10% due to price rise, whereas wage rate per unit would decrease by 20% due to automation. 56% of all the overheads are fixed and balance are variable. As a Management Accountant your are required to prepare (a) Cost statement for the year 2009-2010 after considering the following additional information:

(a) Raw materials stock equivalent to two and half months consumption would be stored.

(b) Production time is one month. Raw materials are introduced at the begining of the process, whereas wages and factory overheads accrue evenly during the production period.

(c) Two months stock of finished goods (valued at factory cost) would be carried in stock.

(d) 20% of raw materials would be imported from China and advance payment of two months would be made thereagainst. 15% of indigenous raw materials requirement would be procured locally against immediate cash payment. Suppliers of balance of indigenous raw materials, allow a credit of one month.

(e) 50% of customers would enjoy a credit of one month, whereas balance 50% of customers would accept a bill of exchange payable after three months. These bills of exchange are immediately hyphothecated with the bank against which overdraft facility would be available equal to 70% of amount of bills of exchange.

(f) Time-lag in payment of wages would be one month and for all overheads, it would be half month.

(g) The company would carry cash balance of ₹ 40,000 in its currency chest. Debtors are to be estimated at selling price.

(h) The activities are spread evenly throughout the year. Degree of completion of work-in-progress is 50%.

Solution

Cost Statement

	2008-09 : 1,00,000 Units					2009-10 : 1,40,000 Units				
	Per Unit			Total		Per Unit			Total	
Element of cost	**Working**	₹		₹	₹	**Working**	₹		₹	₹
A. Raw Materials	500 × 40%		200		2,00,00,000	200 × 110%		220		3,08,00,000
B. Wages	500 × 15%		75		75,00,000	75 × 80%		60		84,00,000
C. Factory Overheads										
1. Fixed	500 × 10% × 56%	28		28,00,000		Same Amount	20		28,00,000	
2. Variable	500 × 10% × 44%	22		22,00,000		Same Rate	22		30,80,000	
	500 × 10%		50		50,00,000			42		58,80,000
D. Factory Cost			325		3,25,00,000			322		4,50,80,000
E. Admn. & Selling Overheads										
1. Fixed	500 × 15% × 56%	42		42,00,000		Same Amount	30		42,00,000	
2. Variable	500 × 15% × 44%	33		33,00,000		Same Rate	33		46,20,000	
	500 × 15%		75		75,00,000			63		88,20,000
F. Cost of Sales	500 × 80%		400		4,00,00,000			385		5,39,00,000
G. Profit	500 × 20%		100		1,00,00,000			215		3,01,00,000
H. Sales	Given		500		5,00,00,000	Given		600		8,40,00,000

Working Capital Estimated for the year 2009-2010

		₹	₹
A. Current assets			
1. Stock			
(a) Raw Material	(3,08,00,000/12 × 2.5 months)		64,16,667
(b) **Work-in-Progress**			
Materials	(3,08,00,000/12 × 1 month)		25,66,667
Labours	(84,00,000/12 × 0.5 month)		3,50,000
Factory Overheads	(58,80,000/12 × 0.5 month)	2,45,000	31,61,667
(c) Finished Goods @ COP	(4,50,80,00/12 × 2 months)		75,13,333
			1,70,91,667
2. Debtors	(8,40,00,000/12 × 0.5 month)		35,00,000
3. Bills Receivable	(8,40,00,000/12 × 1.5 months)		1,05,00,000
4. Advance for Imports	(3,08,00,000/12 × 20% × 2 months)		
5. Cash & Bank Balance	(Given)		40,000
			3,21,58,334
B. *Less:* Current Liabilities			
1. Creditors for Raw Materials	(3,08,00,000/12 × 80% × 85% × 1 month)		17,45,333
2. Outstanding Wages	(84,00,000/12 × 1 month)	7,00,000	
3. Outstanding Factory Overheads	(58,80,000/12 × 0.5 month)	2,45,000	
4. Outstanding Admn. Overheads	(88,20,000/12 × 0.5 month)	3,67,500	
5. Bank Overdraft	(8,40,00,000 × 50% × 70% × 3/12)	73,50,000	
			1,04,07,833
C. Estimated Working Capital (A – B)			2,17,50,501

Illustration 30: From the following information prepare a statement of working capital requirement of QA Ltd. A safety margin of 10% should be added to the estimated working capital.

1. Sales to dealers 'X' ₹ 1,20,000 p.a. at the credit of 1 month. Goods are sold at cost plus $33^1/3\%$.
2. Sales to dealer 'Y' ₹ 2,12,500 p.a. at the credit of 2 months. Goods are sold at cost plus 25%.
3. Sales to customers (30% cash) ₹ 2,40,000 p.a. on 1 month credit. Goods are sold at cost plus 50%.
4. Total cost ₹ 20 per unit, material constitute 50% of Total Cost, Wages constitute 30% of Total Cost and Overheads 20%.
5. Raw material remains in stock for 2 months.
6. Work in process are 1 month. Valuation to be made at material cost plus 50% each of labour and overheads.
7. Finished goods stock to be maintained for 2 months.
8. Suppliers of materials will be given 1 month credit.
9. Time lag in payment of Wages and Overheads is half a month.
10. Bank balance to be maintained ₹ 20,000. **(T.Y. B.Com., Modified)**

Solution: **QA Ltd. Statement of Working Capital Requirement**

Particulars		(₹)
Current Assets		
Debtors		
'X' Dealers	1,20,000/12 × 1/12	10,000
'Y' Dealers	2,12,500/12 × 2/12	35,417
Customers	2,40,000/12 × 70% × 1/12	14,000
		59,417
Stock of Raw Materials	10 × 21,000 units × 2/12	35,000

Stock of W.I.P (1 month)	[10+ 50%(6 + 4)] 21,000 × 1/12	26,250
Stock of Finished Goods	20 × 21,000 × 2/12	70,000
Bank Balance	Given	20,000
Gross Working Capital		**2,10,667**
***Less:* Current Liabilities**		
Creditors	10 × 21,000 × 1 mth/12. = 17,500	
Outstanding Wages	6 × 21,000 × 0.5/12.= 5,250	
Outstanding Overheads	4 × 21,000 × 0.5/12 = 3,500	26,250
Net Working Capital		1,84,417
Add: Safety Margin (10%)		18,442
Estimated Working Capital		**2,02,859**

Working Notes:

1. Statement of cost and goods sold

		(₹)	
(a)	Sales to dealer 'X'	1,20,000	
	Less: Gross Profit (33.33% of cost = 1/4 of sales)	(30,000)	90,000
(b)	Sales to dealer 'Y'	2,12,500	
	Less: Gross Profit (25% of cost = 1/5 of sales)	(42,500)	1,70,000
(c)	Sales to customers	2,40,000	
	Less: Gross Profit (50% of cost = 1/3 of sales)	(80,000)	1,60,000
	Total cost of goods sold		4,20,000

2. Annual sales (unit) = 420,000/20 = 21,000 units
3. Elements of cost per units.

	(₹)
Material (50% of ₹ 20)	10
Wages (30% of ₹ 20)	6
Overheads (20% of ₹ 20)	4
Total Lost	20

Illustration 31: D Ltd. provides you with the following information with the request to prepare a statement of working capital.

A. Cost Records: Total cost of product is ₹ 42 per unit of which 50% is accounted by materials, overheads are 1/3 of the total cost per unit and balance comprises wages.

B. Sales Target (Annual):

Zone A – (Cost + 25%)	₹ 10,00,000	Cash
Zone B – (Cost + 20%)	₹ 8,40,000	1 month credit
Zone C – (Cost + 10%)	₹ 4,40,000	2 months credit

C. Other Details:

(i) Stocks of both raw materials and finished goods are to be kept for 1½ months, while processing takes 1 month.

(ii) A total of 20% of supplies of materials are ensured on cash payment, 25% of supplies are taken on advance payment for 15 days and remaining suppliers have agreed to extend 2 months credit.

(iii) Time lag in payment of wages and overheads is 1/2 month.

(iv) Debtors are valued at sales.

(v) Cash balance is always kept at 10% of net working capital inclusive of cash.

(T.Y. B.Com., Modified)

Solution:

Cost Sheet

Particulars	Zone A	Zone B	Zone C	Total
Sales	10,00,000	8,40,000	4,40,000	
Less: Gross Profit	(10,00,000 × 25/125)	(8,40,000 × 20/120)	(4,40,000 × 10/110)	
	2,00,000	1,40,000	40,000	
Cost	8,00,000	7,00,000	4,00,000	19,00,000
Material (50% Cost)	4,00,000	3,50,000	2,00,000	9,50,000
Labour (1/3 of Cost)	2,66,667	2,33,333	1,33,333	6,33,333
Overheads (Bal)	1,33,333	1,16,667	66,667	3,16,667

Statement Showing the Working Capital Requirement

Particulars		Amt. (₹)	Amt. (₹)	Amt. (₹)
Current Assets:				
Cash and Bank Balance (WN)			55,729	
Stock-in-Trade:				
Raw Material	9,50,000 × 1.5/12	1,18,750		
Work in Progress	9,50,000 + 50% (6,33,333 + 3,16,667) × 1/12	1,18,750		
Finished Goods	19,00,000 × 1.5112	2,37,500	4,75,000	
Debtors:				
Zone A		NIL		
Zone B	8,40,000 × 1/12	70,000		
Zone C	4,40,000 × 2/12	73,333	1,43,333	
Advances to Suppliers	9,50,000 × 25% × 0.5/12		9,896	
Gross Working Capital				6,83,958
***Less:* Current Liabilities**				
Creditors	9,50,000 × 55% × 2/12		87,083	
Outstanding Wages and Overheads	(6,33,333 + 3,16,667) × 0.5/12		39,583	1,26,666
Working Capital				**5,57,292**

Working Note:

Net working capital 100

Cash balance 10

Working capital before cash balance 90

90 = (Stock + Debtors + Advances – Creditors – Outstanding expenses)

90 = 5,01,563

100 = (?)

Net working capital = 5,57,292

Cash balance = 55,729

Illustration 32: From the following particulars of Super Market Limited, estimate their working capital requirement for the year ended 31st March, 2009.

Balance as on 1st April, 2008	**₹**
Debtor	70,000
Bills Receivable	5,000
Creditors	55,000
Bills Payable	4,000
Stock	25,000
Bank Balance (Credit)	1,000

Transaction during the year ended 31st March, 2009	₹
Sales for the year (with uniform profit of 25% on sales)	3,00,000
Purchases for the year	2,10,000
Payment to creditors during the year	1,70,000
Receipt from debtors during the year	2,50,000
Bills Receivable received during the year	3,000
Bills Payable accepted during the year	2,000
Amount received against Bills Receivable	2,000
Amount paid against Bills Payable	1000
Overheads on aanual basis	
(one sixth to remain outstanding)	24,000
Purchased fixed assets by cheque payment	
Contingencies to be kept at 10%	50,000

Solution:

Statement Showing Estimate of Working Capital

		₹
A. Current Assets		
1. Stock [WN 3]	10,000	
2. Debtors [WN 1]	1,17,000	
3. Bills Receivable [WN 5]	6,000	
4. Bank [WM 4]	10,000	1,43,000
B. *Less:* Current Liabilities		
1. Creditors [WN 2]	93,000	
2. Bills Payable [WN 6]	5,000	
3. Outstanding Expenses (1/5 × 20,000)	4,000	1,02,000
Net Working Capital		41,000
Add: Contingencies @ 10%		4,100
		45,100

Working Note

1.

Dr. **Debtors A/c** **Cr.**

	₹		₹
To Balance b/d (given)	70,000	By Bank	2,50,000
To Sales	3,00,000	By Bills Receivable	3,000
	–	By Balance c/d (Bal. Fig.)	1,17,000
	3,70,000		3,70,000

2.

Dr. **Creditors A/c** **Cr.**

	₹		₹
To Bank	1,70,000	By Balance b/d	55,000
To Bills Payable	2,000	By Purchases	2,10,000
To Balance c/d (Bal. Fig.)	93,000		–
	2,65,000		2,65,000

3.

Dr. Stock (Trading) A/c Cr.

	₹		₹
To Balance b/d (Opening Stock)	25,000	By Sales	3,00,000
To Purchases	1,10,000	By Closing Stock (Bal. Fig.)	10,000
To Gross Profit	75,000		–
	3,10,000		3,10,000

4.

Dr. Bank A/c Cr.

	₹		₹
To Debtors	2,50,000	By Opening Balance b/d	1,000
To Bills Receivable	2,000	By Creditors	1,70,000
		By Overheads	20,000
		By Fixed Assets	50,000
		By Bills Payable	1,000
	–	By Balance c/d	10,000
	2,52,000		2,52,000

5.

Dr. Bills Receivable A/c Cr.

	₹		₹
To Opening Balance b/d	5,000	By Bank	2,000
To Debtors	3,000	By Closing Balance c/d	6,000
	8,000		8,000

6.

Dr. Bills Payable A/c Cr.

	₹		₹
To Bank	1,000	By Balance b/d	4,000
To Balance c/d	5,000	By Creditors	2,000
	6,000		6,000

Illustration 33: SC Ltd. has an installed capacity of producing 100 lakh tonnes of cement per annum; its present capacity utilisation is 8O%. The major raw material to manufacture cement is limestone which is obtained on cash basis from a company located near the plant. The company produces cement in 1 tonne drum. From the information given below, determine the net working capital requirement of the company for the current year. Cost structure per drum of cement is as under:

	(₹)
Gypsum	200
Limestone	100
Coal	50
Packing Materials	20
Direct Labour	180
Factory Overheads	
(Including Depreciation of ₹ 10)	45
Administrative Overheads	40

Selling Overheads	10
Total Cost	645
Profit Margin	155
Selling Price	800
Add: Sales Tax (4% of Selling Price)	32
Invoice Price to Consumer	832

Additional information:

1. Desired holding period of raw material:

Gypsum	1½ months
Limestone	2 months
Coal	1 month
Packing materials	1.5 months

2. The product is in process for a period of 1 month (Assume full units of materials namely — Gypsum, Limestone and Coal are required in the beginning; other conversion costs are to be taken at 50%).
3. Finished goods are in stock for a period of 1½ months before they are sold.
4. Debtors are extended credit for a period of 2 months.
5. Average time lag in payment of wages is approximately 1/2 month and of overheads 1 month.
6. Average time lag in payment of sales tax is 1½ months.
7. The credit periods extended by various suppliers are:

Gypsum	1½ months
Coal	1 month
Limestone	2 months
Packing material	1/2 month

8. Minimum desired Cash Balance is ₹ 10 lakhs. **(T.Y. B.Com., Modified)**

Solution: **SC Ltd. Statement Showing the Working Capital Requirement**

(Amt. in Lakhs)

Particulars		(₹)	(₹)	(₹)
Current Assets:				
Bank Balance			10	
Stock-in-Trade:				
Gypsum	200 × 80 × 1.5/12	2,000		
Limestone	100 × 80 × 2/12	1,333		
Coal	50 × 80 × 1/12	333		
Packing Material	20 × 80 × 1.5/12	200		
Work in Progress				
	80 × [200 + 100 + 50 + 50%(20 + 180 + 45) × 1/12	3,150		
Finished Goods	80 × (200 + 100 + 50 + 20 + 180 + 45) × 1.5/12	5,950	12,966	
Debtors	80 × 832 × 2/12		11,093	
Gross Working Capital				24,069
***Less:* Current Liabilities**				

Creditors				
Gypsum	200 × 80 × 1.5/12	2,000		
Limestone	100 × 80 × 2/12	1,333		
Coal	50 × 80 × 1/12	333		
Packing Material	20 × 80 × 0.5/12	67	3,733	
Outstanding Wages	180 × 80 × 0.5/12		600	
Outstanding Overheads	35 × 80 × 1/12		233	
(Excluding Depreciation)				
Outstanding Sales Tax	32 × 80 × 1.5/12		320	
				4,886
Working Capital				**19,183**

Notes:

1. Packing Material is considered as Factory Overhead and hence included in cost of production.
2. Depreciation is also considered as cost of production.

Working Note:

Capacity = 1,00,00,000 tonnes

Utilisation = 80% × 100 lakh tonnes

= 80 lakhs tonnes

Illustration 34: A business having its office at Vashi, has the following assets and liabilities as on 31st March 2015.

Liabilities	Amt. (₹)	Assets	Amt. (₹)
Capital	8,00,000	Cash	55,000
Creditors	72,000	Banks	25,000
		Debtors	1,80,000
		Stock	60,000
		Fixed assets	5,52,000
	8,72,000		**8,72,000**

The business decides to open a branch at Thane. It is expected that Thane branch will require a total capital of ₹ 4,00,000 of which ₹ 80,000 would be towards Fixed Assets. You are asked to compute the Working Capital of business after opening of Thane branch.

Solution: **Statement of Working Capital Requirement**

Particulars	Amt. (₹)
Current Assets	
Cash	55,000
Bank	25,000
Debtors	1,80,000
Stock	60,000
Gross Working Capital	3,20,000
Less: **Current Liabilities**	
Creditors	72,000
Working Capital of Vashi Branch	2,48,000
Add: Working Capital of Thane Branch (4,00,000 – 80,000)	3,20,000
Total Working Capital	**5,68,000**

Illustration 32: From the following information, extracted from the books of manufacturing company, compute the operational cycle in days. (Period covered to be taken 365 days in a year)

Particulars	₹ in '000
Average amount of Debtors	912.50
Stock of Raw Materials	182.50
Stock of Finished Goods	273.75
Average amount of creditors	135
Cost of Raw Materials	1,095
Total Cost	5,000
Sales	8,000

Solution:

1. Stock of raw materials = Cost of raw materials × Number of days/365
   182.50 = 1,095 × Number of days/365
   182.50 × 36511,095 = Number of days
   Number of days = 61 days
2. Stock of finished goods = Total cost × Number of days/365
   273.75 = 5,000 × Number of days/365
   273.75 × 365/5,000 = Number of days
   Number of days = 20 days
3. Debtors = Sales × Number of days/365
   912.50 = 8,000 × Number of days/365
   912.50 × 365/8,000 = Number of days
   Number of days = 42 days
4. Creditors = Cost of Raw materials × Number of days/365
   135 = 1,095 × Number of days/365
   135 × 36511,095 = Number of days
   Number of days = 45 days

Illustration 26: Calculate the Cost of sales if stock of work in progress is ₹ 3,60,000 and its average conversion period is 6 days.

Solution:

Average amount of work in progress = Cost of sales × umber of days/365
3,60,000 = Cost of sales × 6/365
Cost of sales = ₹ 2,19,00,000

Illustration 27: Calculate Inventory conversion period if,

Particulars	(₹)
Raw Material Inventory	50,000
Raw Material Consumption	4,00,000
WIP Inventory	20,000
Total Cost	5,00,000
Finished Goods Inventory	40,000

Total days in a year to be considered 360.

Solution:

1. Stock of Raw Material = Raw Material Consumption × Number of days/360
   50,000 = 4,00,000 × Number of days/360
   Number of days = 45 days
2. Stock of WIP = Total cost × Number of days/360
   20,000 = 5,00,000 × Number of days/360
   Number of days = 14 days
3. Stock of Finished Goods = Total cost × Number of days/360
   40,000 = 5,00,000 × Number of days/360
   Number of days = 29 days

Exercises

Self-assessment Questions 1

1. Maintaining adequate working capital at the satisfactory level is crucial for .... the .... of a firm.
2. Prepaid expenses are ....
3. Provision for tax is ....
4. A firm must have .... neither excess nor shortage.

Self-assessment Questions 2

1. .... refers to the amounts invested in current assets.
2. To .... and monitor the utilization of funds of a firm .... is to be given top priority.
3. When current assets exceed current liabilities the net working capital is ....
4. Permanent working is called .... working capital.

Self-assessment Questions 3

1. Objective of working capital management is achieving a tradeoff between .... and ....
2. Credit obtained by firm from its suppliers is known as ....
3. An aggressive policy of working capital management means depending on .... to the maximum extent.
4. To prevent the competitors from snatching any market for their products the firm may have a .... policy of holding .... of current assets.

Self-assessment Questions 4

1. To finance the operations in .... of a firm working capital is required.
2. To finance operations during the time gap between .... and .... working capital is required.

Self-assessment Questions 5

1. The time gap between acquisition of resources from suppliers and collection of cash from customers is known as ....
2. .... is the average length of time required to produce and sell the product.
3. .... is the average length of time required to convert the firms receivables into cash.
4. .... is conversion cycle is the length of time between firm's actual cash expenditure and its own receipt.

Self-assessment Questions 6

1. Capital intensive industries require .... amount of working capital.
2. There is a .... between volume of sales and the size of working capital of a firm.
3. Under inflationing conditions same level of inventory will require .... investment in working capital
4. Longer the manufacturing cycle the investment in working capital.

Self-assessment Questions 7

1. .... is used to estimate working capital requirements of a firm.
2. Operating cycle approach is based on the assumption that production and sales occur on a ....

Terminal Questions 1

1. Examine the Components of working capital.
2. Explain the concepts of working capital.
3. What are the objectives of working capital management ?
4. Briefly explain the various elements of operating cycle.
5. Gross working capital and Net working capital.

Answer for Self-assessment Questions

Self-assessment Questions 1

1. Maintaining, Competitiveness.
2. Current assets.
3. Current Liabilities
4. Adequate working capital

Self-assessment Questions 2

1. Gross working capital
2. Plan, working capital management as applied.
3. Positive
4. Fixed

Self-assessment Questions 3

1. Liquidity, Profitability.
2. Spontaneous finance.
3. Spontaneous finance.
4. Conservative, Large quantum.

Self-assessment Questions 4

1. Operating cycle
2. Sale of goods on credit, realization of money from customers.

Self-assessment Questions 5

1. Operating cycle
2. Inventory conversion period
3. Receivables conversion period
4. Cash Conversion cycle

Self-assessment Questions 6

1. Higher
2. Positive direct correlation.
3. Increased
4. Larger

Self-assessment Questions 7

1. Operating cycle
2. Continuous bases

Self-assessment Questions 8

Multiple Choice Questions:

1. Working capital is defined as:
   (a) Excess of Current Assets over Current Liabilities
   (b) Excess of Current Liabilities over Current Assets
   (c) Excess of Fixed Assets over Long-term Liabilities
   (d) None of the above.
2. Working Capital is also known as 'Circulating Capital, Fluctuating Capital and Revolving Capital'. The aforesaid statement is:
   (a) Correct (b) Incorrect
   (c) Cannot say
3. The basic objectives of working capital management are:
   (a) Optimum utilisation of resources for profitability
   (b) To meet day-to-day current obligations
   (c) Ensuring marginal return on current assets is always more than cost of capital
   (d) Select anyone of the above statement
4. The term gross working capital is known as:
   (a) The investment in Current Liabilities
   (b) The investment in Long-term Liability
   (c) The investment in Current Assets
   (d) None of the above
5. The term net working capital refers to the difference between the Current Assets minus Current Liabilities.
   (a) The statement is correct (b) The statement is incorrect
   (c) Cannot say
6. The term 'Core Current Assets' was coined by
   (a) Chore Committee (b) Tandon Committee
   (c) Jilani Committee (d) None of the above.
7. The concept operating cycle refers to the average time which elapses between the acquisition of raw materials and the final cash realisation. This statement is
   (a) Correct (b) Incorrect
   (c) Partially True (d) Cannot say
8. Over trading arises when a business expands beyond the level of funds available. The statement is
   (a) Incorrect (b) Correct
   (c) Partially correct (d) Cannot say

Answers:

1. (a), 2. (a), 3. (b), 4. (c), 5. (a), 6. (b). 7. (a), 8. (b)

Self-assessment Questions 9

True or False

1. Current assets are likely to be convertible in to cash with in short period normally, within 12 months.
2. Working capital concept refers to net Current Assets i.e. excess of current assets over current liabilities.
3. Net Working Capital refers to the total Current Assets.
4. Gross Working Capital refers to excess of Current Assets over Current Liabilities.
5. Cash Working Capital indicates the Working Capital at cash cost.
6. Working Capital over and above permanent working capital would be termed as temporary working capital.
7. Working Capital Management is concerned with the problems that arise in managing the current assets, current liabilities and the interrelationships between them.

8. The main objective of management of working capital is to maintain the Working Capital at minimum level.
9. The basic objectives of working capital management are to optimum utilisation of resources for profitability
10. There are two concepts of working capital.
11. Net working capital means total current assets.
12. Net Working Capital means the difference between Current Assets and Current Liabilities.
13. The need for working capital arises due to operating cycle prevailing in the business.
14. The operating cycle refers to the time required to convert the cash into inventory, inventory into receivables and receivables into cash.
15. Working Capital can be permanent and temporary.
16. Current Assets include: stocks of raw materials, work-in-progress, finished goods, trade debtors, prepayments, cash balances etc.
17. Current Liabilities include: trade creditors, accruals, taxation payable, bills payables, outstanding expenses, dividends payable, short-term loans.
18. Permanent or fixed working capital is the minimum amount of working capital required to run the business continuously.
19. Temporary working capital: The amount of working capital over and above the Permanent working capital is variable/fluctuating/temporary working capital.
20. If the firm has inadequate working capital, it is said to be undercapitalised.
21. If a firm has insufficient working capital and tries to increase sales, it can easily overstretch the financial resources of the business. This is called overtrading.
22. Operating Cycle = R + W + F + D – C.

Answers:

1. (T), 2. (T), 3. (F), 4. (F), 5. (T), 6. (T), 7. (T), 8. (F), 9. (T), 10. (T), 11. (F), 12. (T), 13. (T), 14. (T), 15. (T), 16. (T), 17. (T), 18. (T), 19. (T), 20. (T), 21. (T), 22. (T)

Self-assessment Questions 10

Fill in the Blanks

1. The main objective of management of working capital is to maintain the working capital at .... level (satisfactory level/adequate level.)
2. The term gross working capital is known as investment in .... assets. (current)
3. Working capital = ... less .... (current assets, current liabilities)
4. There are two concept of working capital namely .... and .... (gross and net working capital)
5. The operating cycle refers to the time required to convert the .... into inventory, inventory into receivables and receivables into .... (cash)
6. ....working capital is the minimum working capital required to run the business smoothly. (Permanent).
7. Operating cycle = ... (R + W + F + D - C)

Match the following :

A		B	
1.	Gross working capital	a.	minimum working capital
2.	Net working capital	b.	to meet seasonal requirements
3.	Permanent working capital	c.	excess of current assets over current liabilities
4.	Seasonal working capital	d.	excess of current liabilities over current assets
5.	Positive working capital	e.	cash cost of working capital
6.	Negative working capital	f.	valued at cost or at S.P.
7.	Cash working capital	g.	valued at cost of production

8.	Debtors	h.	current asset less current liabilities
9.	Stock of goods	i.	total current assets
10.	WIP	j.	stock of materials +50% of wages & overheads
11.	Creditors	k.	cost of materials for the period of credit
12.	Margin of safety	l.	added to net current assets to get working cap.
13.	Outstanding expenses	m.	lag in payment of expenses
14.	Large scale operation	n.	larger working capital
15.	Cash sales	o.	less working capital

Ans: 1 –I, 2 – h, 3- a ,4- b, 5-c ,6 -4 , 7- e, 8 – f, 9- g ,10- j, 11- k, 12- l, 13- m 14- n, 15 – o.

Fill in the Blanks:

1. Working capital is excess of current asset are __________
2. Net working capital – current ______ less _______ liabilities.
3. Gross working capital = total ______ assets.
4. Decreases in current liabilities ___________ working capital.
5. Working capital required to meet seasonal requirements is ______ .
6. Positive working capital is excess of current assets over ___________.
7. Debtors may be valued at _____ or ______
8. Outstanding expenses bring _________ the requirement of working capital.
9. Margin of safety is _______ to net current assets to get working capital.
10. Permanent working capital is also known as _________ capital.
11. Net working capital = C.A. -____________
12. __________ cycle is one method of estimating working capital.
13. Raw material stock =______ / 12 x no. of months stock.
14. Finished stock = ________ / 12 x no of months stock.
15. Seasonal working capital required for __________ requirement.
16. An organisation which grants longer period of credit requires ______ working capital.

Ans: 1. Current liabilities, 2. Assets, current, 3. Current, assets 4. Increases, 5. seasonal working capital, 6. Current liabilities, 7. Cost, S.P, 8. Down, 9. added, 10. Core, 11. Current liabilities, 12. Operating, 13.cost of material, 14. cost of product, 15. Seasonal, 16. More.

True or False

1. Working capital is excess of current assets over current liabilities.
2. Trading organisation requires less working capital.
3. Cash cost approach is the appropriate basis of estimation of working capital
4. Gross working capital is equal to net current asset
5. Temporary working capital remains constant
6. Permanent working capital remains constant
7. Longer the period of credit allowed by supplires lesser will be the requirement of working capital
8. Lag in the payment of overheads increasing working capital requirement
9. A service organisation requires more working capital then that of trading organisation
10. Inadequate working capital increases efficiencies of the management
11. Trade credit is a source of working capital
12. A business organisation need not have working capital
13. Working capital financing may be done by banks by hypothecation of stock
14. Average holding period of current asset decides requirements of working capital

Ans.: True -1. True, 2. False, 3. True, 4. False, 5. True, 6. True, 7. True, 8. False, 9. False, 10. False, 11. True, 12. False, 13. True, 14. True,

Practical Questions

1. Bhargava Ltd. furnishes you with the following details with the request to calculate the estimated working capital requirements for the year 2014.
   (a) **Credit:** Two months credit to domestic customers and three months to overseas buyers. Suppliers to give one months credit.
   (b) **Time Lag:** One month in respect of all the expenses except sales promotion expenses which are payable in advance on quarterly basis.
   (c) Projected figures for the year 2014:

	₹
Domestic Sale	1,80,000
Export Sales	36,000
Wages	42,000
Manufacturing Expenses	57,000
Administrative Expenses	60,000
Sales Promotion Expenses	30,000

(April - 2000)

   (d) Inventories to be maintained as follows:
   Raw Materials: One month for domestic and two months for export supplies.
   Finished Goods: One month for domestic and three months for export supplies.
   (e) Gross profit is to be maintained at 25% on sales, while overseas buyers are to be allowed a special 10% discount.
   (f) Special Packing Credit Limits are available on 90% of export stocks of raw materials and debtors.
   (g) An additional cash balance is to be maintained as safety margin which is equivalent to 10% of total working capital.

2. From the following details provided by Goldline Computers Limited, estimate their working capital requirement for the year as at 31st March, 2014.

Balances as at on 1st April, 2013

	₹	₹
Debtors	67,000	
Creditors	56,250	
Cash	15,000	
Stock	30,000	
Sales for the year (with uniform profit of 40% on sales)	2,66,750	
Purchase for the year		1,56,750
Payments to Creditors during the year		1,65,000
Receipts from Debtors during the year		2,62,500
Estimated Overheads on annual basis (one fifth to remain outstanding)		20,000
Estimated amounts to be kept for special millennium dividend in addition to Cash Balance		5,000

(October - 2000)

No amount for contingency is to be kept.

3. Finance Director of "SMART LTD" intends to plan financial requirements for working capital of the company for coming year 2014.
   The share capital of the company is ₹ 10,00,000. The company also has issued 10% Debentures of ₹ 1,50,000.
   The Fixed Assets of the company are valued at ₹ 3,75,000.
   Production in the previous year was 15,000 units. It is expected that during coming year it will be 30,000 units.

The estimated cost-sheet is given below:

Particulars	₹ (per unit)
Raw Material	60
Direct Wages	10
Overheads	20
Profit	10
Selling Price	100

(October - 2001)

You are further informed that:

(a) Raw material will be in stock for half month.
(b) Production cycle will take one month.
(c) Finished goods will remain in godown for one month.
(d) All sales will be on credit basis.
(e) Suppliers' will allow three months credit.
(f) Customers' will enjoy four months credit.
(g) Production and sales will be evenly spread throughout the year.
(h) Time lag in payment of wages and overhead will be half month.

You are required to prepare:

(a) The estimate of Working Capital requirement.
(b) Projected Profit and Loss Account for coming year.
(c) Projected Balance Sheet at the end of coming year, in order to find out cash requirement.

4. Following information is submitted by Sairaj Chemist for the year 2014.

			₹
(a)	Total Domestic Sales 2000 Kgs. @ ₹ 20 per 100 gms.		4,00,000
(b)	Exports Sales 1000 Kgs		1,80,000
(c)	Domestic Cash Sales 500 Kgs		1,00,000
(d)	Raw Material Cost		
	(i) For Export Sales	₹ 60 per Kg	
	(ii) For Other Sales	₹ 50 per Kg	
(e)	Wages of all	₹ 50 per Kg	
(f)	Total Fixed Expenses		20,000
(g)	Other Variable Expenses		80,000

For the year 2015 it is estimated as under:

(a) Domestic sales will increase by 20% but average price shall decrease by 10%.
(b) Export realisation will increase by 10% and quantity sold will increase by 20%.
(c) Raw material prices for both will increase by 20%.
(d) Fixed expenses will increase by 80%.
(e) Variable expenses for domestic sales will be ₹ 20 and ₹ 30 per Kg for export sales.
(f) Wages per unit will remain unchanged.

Calculate working capital requirements for the year 2001 considering:

(a) Credit for export sales 3 months, domestic sales 2 months.
(b) Raw material available on 1 month credit for both.
(c) Inventory of Raw material 1 month for both.
(d) Inventory of finished goods 1.5 months for export, 1 month for domestic.
(e) Process time one month.
(f) Ratio of credit sales and cash sales remains same.
(g) Wages are paid at the end of the month for full month.

(h) Fixed overheads are paid in advance for one month.
(i) Cash required is 10% of gross working capital.
(j) Time lag in payment of variable expenses one month.

5. From the following particulars of Super Market Limited, estimate their working capital requirement for the year ended 31st March, 2015.

Balance as on 1st April, 2014	₹
Debtors	70,000
Bills Receivable	5,000
Creditors	55,000
Bills Payable	4,000
Stock	25,000
Bank Balance (Credit)	1,000
Transactions during the year ended 31st March, 2015	₹
Sales for the year (with uniform profit of 25% on sales)	3,00,000
Purchases for the year	2,10,000
Payment to creditors during the year	1,70,000
Receipt from debtors during the year	2,50,000
Bills Receivable received during the year	3,000
Bills Payable accepted during the year	2,000
Amount received against Bills Receivable	2,000
Amount paid against Bills Payable	1,000
Overheads on annual basis	
(one sixth to remain outstanding)	24,000
Purchased fixed assets by cheque payment	50,000
Contingencies to be kept at 10%	

(April - 2002)

6. Computers India Ltd. produced and sold 6,000 Laptops in 2013 and their cost structure was as under:

	Per Unit
Raw Material	₹ 12,000
Labour	₹ 9,000
Manufacturing Overheads	₹ 8,000
Administration and Selling Overheads	₹ 3,000
Profit	25% of Total Cost

(October - 2002)

In 2014 they plan to Manufacture 7,800 Laptops and sell 7,280 units. In the meantime, it is estimated that:

(a) Raw material cost will go up by 10% p.a.
(b) Labour will reduce by 5% p.a.
(c) Manufacturing overheads will go up by 10% p.a.
(d) Administration and selling overheads per unit will remain unchanged.
(e) Selling price per unit will rise by 10% over last year.

It is further informed that:

(a) Raw Material will remain in stores for 4 weeks before issue to production.
(b) Process period is 3 weeks.
(c) 25% of sales will be on cash basis, 25% of sale will be against Bills of Exchange maturing in 8 weeks, balance will be sold at 4 weeks credit.
(d) 25% of Purchases are on cash basis, 25% of Purchases are from Japan and suppliers are to be given advance payment of 6 weeks. Balance suppliers allow a credit of 6 weeks.
(e) Wages and Manufacturing Overheads remain outstanding for 2 weeks, whereas Administration and Selling overheads are paid 2 weeks in advance.
(f) Cash and Bank Balance shall be maintained at ₹ 75,000.
(g) Company shall get Bank Overdraft equal to 50% of stock of raw material and finished goods.

Work out working capital requirements for the year 2002.

7. A proforma cost sheet of a Shrinath & Co. provides the following particulars:

Element of Cost	**Amount per unit (₹)**
Raw Material	80
Direct Labour	30
Overheads	60
Total Cost	170
Profit	30
Selling price	200

(April - 2003)

The following further particulars are available:
Raw materials are in stock on average one month. Production period is two week. For estimating work-in-progress consider 100% Material cost and 50% of labour and overheads.
Finished goods are in stock on an average for one month.
Credit allowed by suppliers is one month. Credit allowed to debtors is two months.
Lag in payment of wages is 1.5 weeks. Lag in payment of overheads expenses is one month.
One-fourth of the output is sold against cash. Cash on hand at bank is expected to be ₹ 10,000.
You are required to prepare a statement showing the Working Capital needed to finance a level of activity of 2,000 units of production per week. Debtors to be considered at selling price.
You may assume that production is carried on evenly throughout the year. Wages and Overheads accrue similarly and a time period of 4 weeks is equivalent to a month.
(Month to be converted in weeks). All purchases are on credit basis.

8. D.K. Ltd. provides the following information:
   (a) Projected annual material and labour cost of the company is ₹ 7,20,000 and ₹ 5,40,000 respectively.
   (b) Cost of sales consists of material, labour and overhead cost only.
   (c) Production and sales take place evenly throughout the year.
   (d) As per the credit policy of the company debtors (at selling price) at three months credit will be ₹ 4,50,000. However for working capital statement investment in debtors is to be considered at cost.
   (e) Raw materials are in stock on an average for one month.
   (f) Finished goods are in stock on an average for half a month.
   (g) Credit allowed by suppliers is two months.
   (h) Materials remain in process (valued at cost of raw material plus 50% of labour and overheads) on an average for one month.
   (i) Company sales goods at 25% profit on cost.
   (j) Time lag in payment of wages and overheads is one month.
   (k) Cash balance to be maintained at ₹ 1,10,000.

You are required to prepare a statement showing the working capital requirement.

(October - 2003)

9. From following details, prepare working capital estimate for 2014:

Raw Material	₹ 125 per unit
Fixed Wages	₹ 9,00,000 per annum
Variable Wages	₹ 40 per unit
Fixed Overheads	₹ 6,60,000 per annum
Variable Overheads	₹ 9 per unit
Level of activity of purchases production and sales	60,000 units per annum

Other Information:

(a) Raw Material stock 1.5 months.
(b) Process time 1 month and to include fixed wages and overheads full, variable wages and overheads 40%.
(c) Finished goods stock 1 month.
(d) M.R.P. of the product is arrived at by calculating 20% profit on sales price.
(e) 25% of the sales are to wholesalers giving them 10% discount Credit given to 40% wholesalers two months against acceptance of bill and balance one month credit.
(f) Balance sales to retailers. Half of it on cash basis by giving 2% discount, balance half on one month credit.
(g) Cash required 15% of net working capital.
(h) For material purchases we accept bill for two months for 25% of quantity and for balance we receive credit for 1.5 months.
(i) Fixed wages are paid ½ month in advance.
(j) Fixed overheads are paid 1 month in advance.
(k) Variable wages time lag is one month.
(l) Variable overheads time lag is half month.

(April - 2004)

10. Aryan Ceramics is going to produce and sale 5000 units per month in the year 2014.
The material required per unit is ₹ 550. The direct labour is ₹ 12,00,000 per month. The expenses are ₹ 1,26,00,000 per annum. The sale price is fixed by calculating profit at 20% on sale price.
Calculate requirement of working capital for 2014 by taking into consideration following information:
(a) Stock of raw material will be two months.
(b) Process time is one month.
(c) Stock of finished goods will be 1.5 months.
(d) Credit allowed to 50% customers two months on acceptance of bill and balance 50% customers given one month credit.
(e) 25% of expenses are paid one month in advance and balance 75% is paid after one month.
(f) Time lag in payment of wages is one month.
(g) 20% of material is purchased on cash basis and suppliers of 80% material give 1.5 months credit.
(h) Cash required is 15% of net working capital.

(October - 2004)

11. Chinmag is carrying on trading business in India and gives the following information:
(a) Estimated sales in year ₹ 12,00,000.
(b) His Administrative and Selling expenses are estimated as fixed expenses ₹ 2,000 per month and variable expenses equal to 5% of his turnover.
(c) He expects to fix sale price for each product which will be 25% in excess of his cost of purchase.
(d) He expects to turnover his stock four times in the year.
(e) The sales and purchases will be evenly spread throughout the year. 20% of sales will be on cash and balance on credit and allowed 2 months credit. He also expects one month credit from his suppliers.
(f) Cash balance = Fixed and variable expenses for one month.

Calculate his average working capital and prepare his income statement for the year.

(April - 2005)

12. MR Ltd. sells its goods in domestic as well as in foreign market. Domestic selling price is determined at a gross profit of 30% on sales and export price is 5% below domestic price. These prices are without considering depreciation.

Following are the estimated annual figures:

Sales : Domestic	₹ 12,00,000
: Export	₹ 9,50,000
Material Consumption	₹ 6,60,000
Wages (time lag one month)	₹ 4,80,000
Manufacturing Expenses (one month in arrears) (excluding Depreciation)	₹ ?
Administration Expenses (Half month in arrears)	₹ 1,20,000
Sales Expenses (Payable quarterly in advance)	₹ 60,000

(October - 2005)

Company's policy is to maintain one month stock each of raw materials and finished goods, and cash ₹ 25,000.

Domestic customers are allowed credit of two months and foreign customers get credit for three months from the date of sale. Two months credit facility is available from suppliers of raw materials. Ascertain the funds required as working capital on above estimates.

Out of purchases of raw materials 10% are on cash basis. Debtors are to be estimated at cost price. Ignore work-in-progress.

13. From the following data provided by M/s Alpha Ltd. showing working capital requirements for the year ended 31st March, 2014:
    (a) Estimated activity operations for the year 2,60,000 units (52 weeks).
    (b) Raw materials remains in stock for 2 weeks and production cycle takes 2 weeks.
    (c) Finished Goods remaining in stock for 2 weeks.
    (d) 2 weeks credit is allowed by suppliers.
    (e) 4 weeks credit is allowed to Debtors.
    (f) Time lag in payment of wages and overheads is 2 weeks each.
    (g) Cash and Bank Balance to be maintained ₹ 25,000.
    (h) Selling price per unit is ₹ 15.
    (i) Analysis of cost per unit as follows:
        1. Raw material 331/3% of sales.
        2. Labour and overheads in the ratio of 6:4 per unit.
        3. Profit is at ₹ 5 per unit.

    Assume that operations are evenly spread throughout the year, Wages and Overheads accrue similarly. Manufacturing process requires feeding of material fully at the beginning. Degree of work-in-progress is 50%. Debtors are to be estimated at selling price.

(April - 2006)

14. A company plans to manufacture and sell 400 units of domestic appliances per month at price of ₹ 600 each for the calendar year 2014. The ratio of cost of selling price are as follows:

	% of selling price
Raw material	30
Packing material	20
Direct labour	15
Direct expenses	5

Fixed overhead are estimated at ₹ 4,32,000 per annum.

Stock were maintained as per following:

Raw material	30 days
Packing material	15 days
Work in progress	7 days
Finished goods	200 Units

Following additional information is given:

1. Credit sales represent 80% and customers enjoy 30 working days credit. Balance 20% are cash sales.
2. Creditors allow 21 working days credit for payment.
3. Lag in payment in overhead and expenses is 15 working days.
4. Cash requirements to be 12% of net working capital excluding cash.
5. Working days in a year are taken as 300.

Prepare working capital requirement for the year 2014. **(October - 2006)**

15. Amruta Enterprises (having Installed capacity of 2,00,000 units p.a.) produced 1,00,000 units in the financial year 2012-2013. The cost structure in 2012-2013 was as under:

(a)	Raw Materials	40%
(b)	Wages	15%
(c)	Factory Overheads	10%
(d)	Administrative and Selling Overheads	15%
	Total cost	80%
(e)	Profit	20%
	Selling Price	100%

The selling price, which was ₹ 500 per unit in 2012-2013, is estimated to be fixed as at ₹ 600 per unit for the year 2012-2013; and production and sale expected to increase by 40,000 units. It is, further, anticipated that raw materials cost per unit would increase by 10% due to price rise, whereas wage rate per unit would decrease by 20% due to automation, 56% of all the overheads are fixed and balance are variable. As a Management Accountant you are required to prepare (a) Cost statement for the year 2012-2013 and (b) Statement showing estimated working capital required for the year 2012-2013 after considering the following additional information:

(a) Raw materials stock equivalent to two and half months consumption would be stored.

(b) Production time is one month. Raw materials are introduced at the beginning of the process, whereas wages and factory overheads accrue evenly during the production period.

(c) Two months stock of finished goods (valued at factory cost) would be carried in stock.

(d) 20% of raw materials would be imported from China and advance payment of two months would be made there against. 15% of indigenous raw materials requirement would be procured locally against immediate cash payment. Suppliers of balance of indigenous raw materials, allow a credit of one month.

(e) 50% of customers would enjoy a credit of one month, whereas balance 50% of customers would accept a bill of exchange payable after three months. These bills of exchange are immediately hypothecated with the bank against which overdraft facility would be available equal to 70% of amount of bills of exchange.

(f) Time - lag in payment of wages would be one month and for all overheads, it would be half month.

(g) The company would carry cash balance of ₹ 40,000 in its currency chest. Debtors are to be estimated at selling price.

(h) The activities are spread evenly throughout the year. Degree of completion of work-in-progress is 50%. **(April - 2007)**

16. From the following figures, prepare an estimate of the working capital:

Production	30,000 units
Selling Price per unit	₹ 10
Raw Material	60% of selling price
Direct wages	1/6th of raw material.
Overheads	Twice the Direct wages
Material in hand	2 months requirement

Production time	1 month
Finished goods in stores	3 month
Credit for material	2 month
Credit allowed to customers	3 month
Average cash balance	₹ 40,000

(October - 2007)

Wages and overheads are paid in the beginning of next month. In production all the material are charged in the initial stage and wages and overheads accrue evenly.

17. From following information given by Tata Ltd. estimate working capital requirement for year ending 31-3-2014:

	PER CAR	RATE
STEEL	1000 kg	₹ 70 per kg.
SPARES	20 kg	₹ 60 per kg.
ENGINE	1	₹ 20,000 per engine
LABOUR	50 hrs	₹ 100 per hr.
OVERHEAD		₹ 20,000

(April - 2008)

(a) Steel remains in stock for two months, spares remains in stock for half month and engine remains in stock for one month.
(b) Suppliers of steel allows credit of two months, suppliers of spares allow credit for one month end suppliers of engine allows credit for half month.
(c) Production process takes half month.
(d) Time lag in payment of labour and overhead is one month.
(e) Car (finished goods) remains in stock for one month.
(f) Activity is spread evenly throughout the year.

18. You are required to prepare a statement showing the working capital required to finance the level of activity of 12,000 Units per year from the following information:
(a) Raw materials are in stock on an average for 2 months.
(b) Materials are in process on an average for half a month.
(c) Finished goods are in stock on an average for one month.
(d) Credit allowed by the suppliers is 1½ months of purchase of raw materials and credit allowed to the customers is 2½ months.
(e) Lag in payment of wages and overheads is one month.
(f) Cash and Bank balance is expected to be 10% of Net Working Capital before considering the Cash and Bank balance.
(g) Activities are spread evenly throughout the year:
Cost per Unit:

Raw Material	₹ 10
Wages	₹ 5
Total Cost	₹ 30

Profit is 20% on selling price.

(October - 2008)

19. Tata Manufacturing Co. started for production of NANO cars at Calcutta in March 2014 and purchased land for ₹ 10,00,000 and incurred ₹ 5,00,00,000 on its factory construction. However before production was started due to labour problems Company has shifted its factory to Maharashtra, where it had benefit of low overheads. Overheads are 50% of labour expenses in Maharashtra.

Following is cost structure per Car in Maharashtra for the year 2013-14

Steel	50 kgs. @ ₹ 1,000 per kg.
Spare Parts	10 kgs. @ ₹ 200 per kg.
Engine	1 Engine @ ₹ 20,000 per engine
Labour Charges	100 Hrs @ ₹ 20 per hour.

From the following additional information calculate Working Capital requirement for the company to be started in Maharashtra for the year 2013-14.

(a) Steel remains in stock for 2 months, Spare Parts remain in stock for 1 month and Engine for 6 months.
(b) Suppliers of Steel allow credit for 1 month, suppliers of Spare Parts allow credit for 15 days and suppliers of Engine allow credit for 2 months.
(c) Time lag for payment of Labour and Overhead is 1 month.
(d) Cars will be in Stock for 15 days after production.
(e) Production Cycle is for 1 Month.
(f) Estimated Production during year 2013-14 will be 5,000 NANO cars.

(April - 2009)

20. A Ltd. manufactured and sold 30,000 machines in the year 2013 at 100% capacity.
Following information is available for the same year.

	₹		₹
Materials	7,50,00,000	Labour	3,00,00,000
Sales	15,00,00,000	Gross Profit	20% on Sales

Due to slow down in economy the company has decided to the reduce its production to 50% of its capacity during the year 2014.
It is estimated that: (a) Price of Raw material will be reduced by 10% per unit. (b) Wages will be reduced by 20% per unit. (c) Overheads will be increased by 10% per unit. (d) Selling price per unit to be estimated to maintain profit on sales at 20%.
Additional Informations for the year 2014:
(a) Raw material will remain in stock for one month.
(b) Finished goods will remain in warehouse for 2 months.
(c) Customers (at selling price) will enjoy one month credit.
(d) Suppliers will allow 2 months credit.
(e) Time lag in payment of wages and overheads will be 1 month.
(f) Processing period one month.
(g) Cash and bank balance should be ₹ 30,00,000.
You are required to forecast working capital requirement for the year 2009.

(October - 2009)

21. The Management of Kaka Ltd. has asked you to prepare an estimate showing the working capital requirement for 2014-15, along with estimated cost sheet.
Present position: 2013-14
Operating Capacity – 40%, giving output of 40,000 units for the year:
Cost Structure per unit:

	(₹)
Raw Material	20
Direct Labour	15
Overheads	10
Profit	5

Estimates for the next year 2014-15
Operating Capacity 60%
Cost Structure: Raw Material cost to increase by 10%; Direct Labour cost to increase by 20%;

Overheads to increase by 20%; Selling Price to increase by 20%

The following further information is available:

(a) The purchase, production and sales pattern is assumed to be even throughout the year.
(b) The Raw Materials will remain in stock for 1 month.
(c) The production process will take 1 month wherein labour and overheads will accrue evenly during the process.
(d) The Finished Goods will remain in the stock for 2 months.
(e) The customers will be allowed a credit of 2 months.
(f) The Suppliers will allow a credit of 1 month.
(g) The time-lag in payment of labour will be 1 month.
(h) The time-lag in payment of overheads will be half a month.
(i) The Cash and Bank Balance is expected to be ₹ 25,000.
(j) Calculate debtors on cost basis.
(k) 20% of the purchase will be on cash basis.

(April - 2010)

22. The following information is presented by Data and Sons Ltd. for the year 2014-15.

Estimated Yearly Production = 30,000 units.

Estimated Cost Sheet per unit

	(₹)
Raw Materials	5
Wages	3
Overheads	2
Selling Price	12

Further Information:

(a) The company extends two months credit to the customers.
(b) The company maintains one month's stock of finished goods.
(c) The company maintains two month's stock of finished goods.
(d) The processing period is half a month.
(e) The company is allowed one month's credit by suppliers.
(f) Wages and Overheads are paid one month in arrears.
(g) The cash and bank balance is expected to be ₹ 8,125.
(h) There is regular purchase, production and sales cycle.
(i) During production process wages and overheads accrue evenly.
(g) Debtors are to be calculated on sale price basis.

Prepare an estimate of Working Capital. **(October - 2010)**

23. From the following information provided by M/s. P and Co. Pvt. Ltd., prepare a statement showing working capital requirements for the year 2014-2015:

(a) Estimated sales for the 2014-2015 ₹ 21,60,000.
(b) Estimated cost structure ratios to selling price-Raw Materials 60%, Labour 20% and Overheads 10%.
(c) Selling price ₹ 20 per unit.
(d) Raw Materials remain in stock for 2 months.
(e) Materials remain in process for 1 month.
(f) Finished Goods remain in stock for 1 month.
(g) Customers are allowed 2 months credit.
(h) Suppliers allow 1 month credit.

(i) Time lag in payment of wages is one month.
(j) Time lag in payment of overheads is half a month.
(k) Cash and Bank Balance is expected to be 25% of the Debtors.
(l) Provide a margin of safety at 10%.
(m) Debtors are to be calculated at selling price.
(n) During the manufacturing process labour and overhead and accrue evenly. **(April - 2011)**

24. From the following information given by M/s. Q and Co. Pvt. Ltd., prepare an estimate of working capital for the year ended 31st March, 2014.
(a) Estimated level of Activity – 104,000 units for the year 52 weeks.
(b) Cost of Raw Materials per unit – ₹ 5.
(c) Cost of Labour per unit – 40% if raw materials.
(d) Cost of Overheads per unit – 50% of the labour cost.
(e) Profit per unit is – 200% of overheads.
(f) Stock or Raw Materials – 4 weeks.
(g) Processing Period – 4 weeks.
(h) Stock of Finished Goods – 4 weeks.
(i) Credit to the Debtors – 6 weeks.
(j) Credit by the creditors – 4 weeks.
(k) Time Lag in payment of wages – 4 weeks.
(l) Time Lag in payment of overheads – 2 weeks.
(m) Cash and bank Balance required ₹ 40,000.
(n) Debtors are calculated on Sales basis.
(o) Purchases against Cash – 20%.
(p) All the activities are spread evenly throughout the year.
(q) During processing, labour and overhead accrue evenly. **(October - 2011)**

25. Radhika Manufacturing Limited presents the following information for 2013-14.
Estimated Yearly Production and Sales = 60,000 units
Estimated Cost Elements per unit.

Raw Materials	₹ 5
Wages	₹ 3
Overheads	₹ 2
Selling Price	₹ 12

Further Information:
(a) The company extends two months credit to the debtors.
(b) The company maintains one months stock of Raw materials.
(c) The company maintains one months stock of finished goods.
(d) The processing period is one month.
(e) The company is allowed two months credit by suppliers.
(f) Wages and Overheads are paid one month in arrears.
(g) The cash and bank balance is expected to be equal to ₹ 25,000.
(h) There is regular purchase, production and sales cycle.
(i) During production process wages and overheads accrue evenly.
(j) Debtors are to be calculated on cost basis.
(k) 20% of the customers pay one month in advance.

Prepare statement showing an estimate of working capital.

26. Annual Sales ₹ 18,00,000 with gross profit ratio of 25%. Of the total sales 50% on cash basis and balance on credit basis. Calculate the amount of sundry debtors on cost basis if customers are offered one month's credit. **(April - 2012)**

27. From the following estimates and information relating to Nirmala Products Private Limited, calculate working capital requirement for the year 2013-14:
  (a) Expected level of production and Sale for the year 1,80,000 units.
  (b) Cost per unit - Raw Materials ₹ 9, Direct Labour ₹ 4 and Overheads ₹ 6.
  (c) Selling Price per unit ₹ 22.
  (d) Raw Materials in stock on an average for 30 days.
  (e) Materials are in process on an average for 15 days.
  (f) Finished goods in stock on an average for 30 days.
  (g) Credit allowed by suppliers is 30 days.
  (h) Time lag in payment from customers is 60 days.
  (i) Time lag in payment of labour is 15 days.
  (j) Time lag in payment of overheads is 30 days.
  (k) All the sales are on credit except 10% sales which are on cash basis.
  (l) Cash and Bank balance is expected to be ₹ 67,000.
  (m) The production and sales are evenly spread throughout the year.
  (n) Labour and Overheads accrue evenly during processing period.
  (o) Company works for 360 days during an accounting year.
  (p) Estimate debtors on cost basis.
28. The following are the particulars of Vijay and Company for the year 2013-14. Calculate the working capital estimate for an annual sales of 78,000 units.
  (a) Cost Sheet:

Particulars	₹ (Per unit)
Raw Material	40
Wages	20
Overheads	30
Profit	30

  (b) Production and Sales take place evenly throughout the year.
  (c) Raw Material is on eight weeks credit.
  (d) Raw Material remains in stock for eight weeks.
  (e) Processing period is of two weeks, wherein Raw Material, Wages and Overheads accrue evenly.
  (f) Finished Goods remain in stock for ten weeks.
  (g) Customers are given nine weeks credit.
  (h) Time lag in payment of wages is four weeks.
  (i) Time lag in payment of overheads is two weeks.
  (j) Cash and Bank Balance is maintained at ₹ 1,05,000.
  (k) Calculate Debtors on sales.
29. Arya Ltd. is going to produce and sell 5,000 units per month in the year 2014.
  The material required per unit is 500. The direct labour is ₹ 10,00,000 per month. The expenses are ₹ 24,00,000 per annum. The sales price is fixed by calculating profit at 20% at selling price.
  Calculate requirement of working capital for the year 2014 by taking into consideration the following information:
  (a) Stock of raw material will be two months.
  (b) Process time is one months.
  (c) Stock of finished goods will be two months.
  (d) Credit allowed to 50% customers two months on acceptance on bills and balance 50% customers given one month credit.
  (e) Time lag in payment of wages is one month.
  (f) 20% of material is purchased on cash basis and suppliers of 80% material give 1.5 months credit. **(T.Y. B.Com., Modified)**

30. Ruby manufacturing company gives the following details. Estimated level of activity 26,000 units of production for the year 2013-14.

Estimated Cost per Unit is:

	₹
Raw materials	20
Direct wages	8
Overheads	16
Selling price	50

Further information:

(a) Raw materials in stock average 4 weeks consumption.
(b) Work-in progress 2 weeks.
(c) Finished good in stock 2 weeks.
(d) Credit allowed by supplier 2 weeks.
(e) Credit allowed to debtors 3 weeks.
(f) Lag in payment of wages and overheads 1 week.
(g) Cash at Bank for smooth operation is expected to be ₹ 24,000.
(h) Production is carried on evenly throughout the year.
(i) Provide a margin of safety at 10%.
(j) Debtors are to calculated at selling price.
(k) 25% purchases and 20% sales are against cash.

You are required to prepare a statement showing working capital requirements for the year 2013-14. **(T.Y. B.Com., Modified)**

31. Eshabella Garments Company Ltd. is a famous manufacturer and exporter of garments to the European countries. You are required to prepare working capital requirements for the next year 2014-15, after considering the following information:

(a) Production during the current year was 1,50,000 units. The same level of activity is intended to be maintained during the next year 2014-15.
(b) The expected ratios of cost to selling price are:

Raw materials	40%
Direct wages	20%
Overheads	20%

(c) The raw materials ordinarily remain in store for 3 months before production.
(d) Every unit of production remains in the process for 2 months.
(e) Finished goods remain in warehouse for 3 months.
(f) Credit allowed by the creditors is 4 months from the date of the delivery of raw material.
(g) The estimated balance of cash to be held ₹ 1,50,000.
(h) Time lag in payment of wages and overheads is ½ month.
(i) Selling price would be ₹ 10 per unit for the year 2014-15.
(j) There is regular purchase, production and sale cycle.
(k) You are required to make provision of 10% for contingency.
(l) During the processing labour and overheads accrue evenly.

You are required to prepare a statement showing working capital requirements for the year 2013-14.

(October - 2012)