TEXTBOOK FOR CLASS XII

ACCOUNTANCY

COMPANY ACCOUNTS AND ANALYSIS OF FINANCIAL STATEMENTS

ACCOUNTANCY Company Accounts and Analysis of Financial Statements Class XII NCERT

Accountancy

Company Accounts and Analysis of Financial Statements

Textbook for Class XII

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
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Foreword

The *National Curriculum Framework* (NCF), 2005, recommends that children's life at school must be linked to their life outside the school. This principle marks a departure from the legacy of bookish learning which continues to shape our system and causes a gap between the school, home and community. The syllabi and textbooks developed on the basis of NCF signify an attempt to implement this basic idea. They also attempt to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a child-centred system of education outlined in the *National Policy on Education* (1986).

The success of this effort depends on the steps that school principals and teachers will take to encourage children to reflect on their own learning and to pursue imaginative activities and questions. We must recognise that, given space, time and freedom, children generate new knowledge by engaging with the information passed on to them by adults. Treating the prescribed textbook as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Inculcating creativity and initiative is possible if we perceive and treat children as participants in learning, not as receivers of a fixed body of knowledge.

These aims imply considerable change in school routines and mode of functioning. Flexibility in the daily time-table is as necessary as rigour in implementing the annual calendar so that the required number of teaching days are actually devoted to teaching. The methods used for teaching and evaluation will also determine how effective this textbook proves for making children's life at school a happy experience, rather than a source of stress or boredom. Syllabus designers have tried to address the problem of curricular burden by restructuring and reorienting knowledge at different stages with greater consideration for child psychology and the time available for teaching. The textbook attempts to enhance this endeavour by giving higher priority and space to opportunities for contemplation and wondering, discussion in small groups, and activities requiring hands-on experience.

The National Council of Educational Research and Training (NCERT) appreciates the hard work done by the textbook development committee responsible for this book. We wish to thank the Chairperson of the advisory group in Social Sciences Professor Hari Vasudevan and the Chief Advisor for this book, Professor R.K. Grover, (Retd.) Director, School of Management Studies (IGNOU), New Delhi for guiding the work of this committee. Several teachers contributed to the development of this textbook; we are grateful to their principals for making this possible. We are indebted to the institutions and organisations which have generously permitted us to draw upon their resources, material and personnel. We are especially grateful to the members of the National Monitoring Committee, appointed by the Department of Secondary and Higher Education, Ministry of Human Resource Development under the Chairpersonship of Professor Mrinal Miri and Professor G.P. Deshpande, for their valuable time and contribution. As an organisation committed to the systemic reform and continuous improvement in the quality of its products, NCERT welcomes comments and suggestions which will enable us to undertake further revision and refinement.

Director
National Council of Educational
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New Delhi
20 November 2006

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THE CONSTITUTION OF INDIA

PREAMBLE

WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a **SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC** and to secure to all its citizens :

JUSTICE, social, economic and political;

LIBERTY of thought, expression, belief, faith and worship;

EQUALITY of status and of opportunity; and to promote among them all

FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation;

IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do **HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.**

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The textbook underwent updation in the year 2013-2014 with the adoption of Revised Schedule VI to the Companies Act 1956.The contribution of Professor G.C. Maheshwari, MS University Baroda; Shri S.S. Sehrawat, former Deputy Commissioner, Kendriya Vidyalaya Sangathan, Shri G.S. Grewal, Chartered Accountant; Dr. Mohan Kumar. Assistant Professor of Commerce, Government College Bahu, Haryana; Shri Sanjeev Kumar, Vice Principal Government Senior Secondary School, Preet Vihar, New Delhi; Shri Rajesh Kumar, PGT Commerce, Maharana Pratap SBV Rithala, Delhi; Shri Sunil Kumar, PGT Commerce, Government Sarvodaya Vidyalaya, Sector-3, Rohini, New Delhi; Shri Anil Kumar Deswal, PGT Commerce, RPVV, Rohini New Delhi, Ms. Jayotsna Davar, PGT Commerce, RPVV, Tyagraj Nagar, New Delhi and Shri Manveer Singh Rana, PGT commerce, Amity International School, Noida is thankfullly acknowledged for helping in the updation of the textual content.

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Accounting for Share Capital

1

LEARNING OBJECTIVES

After studying this chapter, you will be able to :

- *Explain the basic nature of a joint stock company as a form of business organisation and the various kinds of companies based on liability of their members;*
- *describe the types of shares issued by a company;*
- *explain the accounting treatment of shares issued at par, at premium and at a discount including oversubsription;*
- *outline the accounting for forfeiture of shares and reissue of forfeited shares under varying situations;*
- *workout the amounts to be transferred to capital reserve when forfeited*
- *shares are reissued; and*
- *prepare share forfeited account ;*

A company form of organisation is the third stage in the evolution of forms of organisation. Its capital is contributed by a large number of persons called shareholders who are the real owners of the company. But neither it is possible for all of them to participate in the management of the company nor considered desirable. Therefore, they elect a Board of Directors as their representative to manage the affairs of the company. In fact, all the affairs of the company are governed by the provisions of the Companies Act, 1956. A company means a company incorporated or registered under the Companies Act, 1956 or under any other earlier Companies Acts. According to Chief Justice Marshal, "a company is a person, artificial, invisible, intangible and existing only in the eyes of law. Being a mere creation of law, it possesses only those properties which the charter of its creation confers upon it, either expressly or as incidental to its very existence".

A company usually raises its capital in the form of shares (called share capital) and debentures (debt capital.) This chapter deals with the accounting for share capital of companies.

1.1 Features of a Company

A company may be viewed as an association of person who contribute money or money's worth to a common inventory and use it for a common purpose. It is an artificial person having or corporate legal entity distinct from its members (shareholders) and has a common seal used for its signature. Thus, it has certain special features which distinguish it from the other forms of organisation. These are as follows:

- *Body Corporate:* A company is formed according to the provisions of Law enforced from time to time. Generally, in India, the companies are formed and registered under Companies Law except in the case of Banking and Insurance companies for which a separate Law is provided for.
- *Separate Legal Entity:* A company has a separate legal entity which is distinct and separate from its members. It can hold and deal with any type of property. It can enter into contracts and even open a bank account in its own name. It can sue others as well as be sued by others.
- *Limited Liability:* The liability of the members of the company is limited to the unpaid amount of the shares held by them. In the case of the companies limited by guarantee, the liability of its members is limited to the extent of the guarantee given by them in the event of the company being wound up.
- *Perpetual Succession:* The company being an artificial person created by law continues to exist irrespective of the changes in its membership. A company can be terminated only through law. The death or insanity or insolvency of any member of the company in no way affects the existence of the company. Members may come and go but the company continues.
- *Common Seal:* The company being an artificial person, cannot sign its name by itself. Therefore, every company is required to have its own seal which acts as an official signatures of the company. Any document which does not carry the common seal of the company is not binding on the company.
- *Transferability of Shares:* The shares of a public limited company are freely transferable. The permission of the company or the consent of any member of the company is not necessary for the transfer of shares. But the Articles of the company can prescribe the manner in which the transfer of shares will be made.
- *May Sue or be Sued:* A company being a legal person can enter into contracts and can enforce the contractual rights against others. It can sue and be sued in its name if there is a breach of contract by the company.

1.2 Kinds of a Company

Companies can be classified either on the basis of the liability of its members or on the basis of the number of members. On the basis of liability of its members the companies can be classified into the following three categories:

(i) *Companies Limited by Shares:* In this case, the liability of its members is limited to the extent of the nominal value of shares held by them. If a member has paid the full amount of the shares, there is no liability on his part whatsoever may be the debts of the company. He need not pay a single paise from his private property. However, if there is any liability involved, it can be enforced during the existence of the company as well as during the winding up.

(ii) *Companies Limited by Guarantee:* In this case, the liability of its members is limited to the amount they undertake to contribute in the event of the company being wound up. Thus, the liability of the members will arise only in the event of its winding up.

(iii) *Unlimited Companies:* When there is no limit on the liability of its members, the company is called an unlimited company. When the company's property is not sufficient to pay off its debts, the private property of its members can be used for the purpose. In other words, the creditors can claim their dues from its members. Such companies are not found in India even though permitted by the Companies Act, 1956.

On the basis of the number of members, a company can be divided into two categories as follows:

(i) *Public Company:* A public company means a company which (a) is not a private company, (b) has minimum capital of Rs. 5 lakh on such higher paid-up capital may be prescribed, and (c) is a private company which is a subsidiary of which is not a private company.

(ii) *Private Company:* A private company is one which has a minimum paid up capital of Rs. 1 Lakh or such higher paid-up capital as may be prescribed by its Articles :

  (a) restricts the right to transfer its shares;
  (b) limits the number of its members to fifty (excluding its employees);
  (c) prohibits any invitation to the public to subscribe for any shares in or debentures of the company.
  (d) prohibits any invitation or acceptance of deposits from person other than its members, directors, and relatives.

1.3 Share Capital of a Company

A company, being an artificial person, cannot generate its own capital which has necessarily to be collected from several persons. These persons are known as shareholders and the amount contributed by them is called share capital. Since the number of shareholders is very very large, a separate capital account cannot be opened for each one of them. Hence, innumerable streams of capital contribution merge their identities in a common capital account called as 'Share Capital Account'.

1.3.1 Categories of Share Capital

From accounting point of view the share capital of the company can be classified as follows:

- *Authorised Capital:* Authorised capital is the amount of share capital which a company is authorised to issue by its Memorandum of Association. The company cannot raise more than the amount of capital as specified in the Memorandum of Association. It is also called Nominal or Registered capital. The authorised capital can be increased or decreased as per the procedure laid down in the Companies Act. It should be noted that the company need not issue the entire authorised capital for public subscription at a time. Depending upon its requirement, it may issue share capital but in any case, it should not be more than the amount of authorised capital.
- *Issued Capital:* It is that part of the authorised capital which is actually issued to the public for subscription including the shares allotted to vendors and the signatories to the company's memorandum. The authorised capital which is not offered for public subscription is known as 'unissued capital'. Unissued capital may be offered for public subscription at a later date.
- *Subscribed Capital:* It is that part of the issued capital which has been actually subscribed by the public. When the shares offered for public subscription are subscribed fully by the public the issued capital and subscribed capital would be the same. It may be noted that ultimately, the subscribed capital and issued capital are the same because if the number of share, subscribed is less than what is offered, the company allot only the number of shares for which subscription has been received. In case it is higher than what is offered, the allotment will be equal to the offer. In other words, the fact of over subscription is not reflected in the books.
- *Calledup Capital:* It is that part of the subscribed capital which has been called up on the shares. The company may decide to call the entire amount or part of the face value of the shares. For example, if the face value (also called nominal value) of a share allotted is Rs. 10 and the company has called up only Rs. 7 per share, in that scenario, the called up capital is Rs. 7 per share. The remaining Rs. 3 may be collected from its shareholders as and when needed.
- *Paid-up Capital:* It is that portion of the called up capital which has been actually received from the shareholders. When the share-holders have paid all the call amount, the called-up capital is the same to the paid-up capital. If any of the shareholders has not paid amount on calls, such an amount may be called as 'calls in arrears'. Therefore, paid-up capital is equal to the called-up capital minus call-in-arrears.
- *Uncalled Capital:* That portion of the subscribed capital which has not yet been called-up. As stated earlier, the company may collect this amount any time when it needs further funds.

- *Reserve Capital:* A company may reserve a portion of its uncalled capital to be called only in the event of winding up of the company. Such uncalled amount is called 'Reserve Capital' of the company. It is available only for the creditors on winding up of the company.

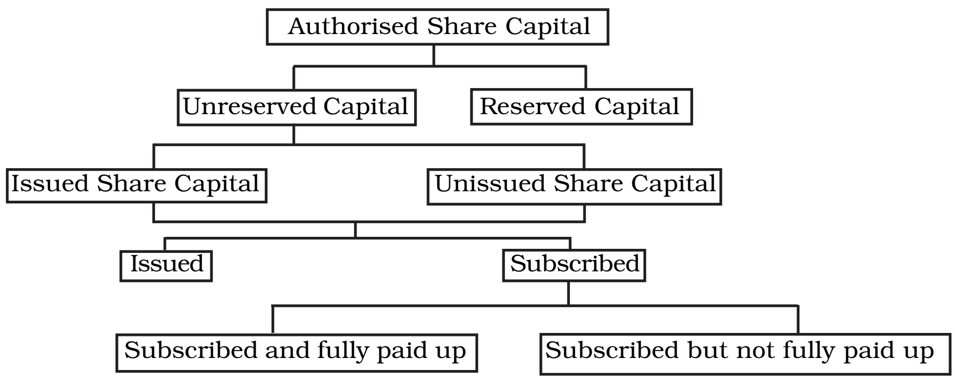


Fig. 1.1 : *Categories of Share Capital*

Let us take the following example and show how the share capital will be shown in the balance sheet. Sunrise Company Ltd., New Delhi, has registered its capital as Rs. 40,00,000, divided into 4,00,000 shares of Rs. 10 each. The company offered to the public for subscription of 2,00,000 shares of Rs. 10 each, as Rs. 2 on application, Rs.3 on allotment, Rs.3 on first call and the balance on final call. The company received applications for 2,50,000 shares. The company finalised the allotment on 2,00,000 shares and rejected applications for 50,000 shares. The company did not make the final call. The company received all the amount except on 2,000 shares where call money has not been received. The above amounts will be shown in the balance sheet of a company as follows:

Sunrise Company Ltd.
Balance Sheet as at ....

Share Capital	*(Rs.)*
<u>Authorised or Registered or Nominal Capital:</u>	
4,00,000 Shares of Rs. 10 each	40,00,000
<u>Issued Capital</u>	
2,00,000 Shares of Rs. 10 each	20,00,000

Subscribed but not fully paid up	16,00,000	
2,00,000 Shares of Rs. 10 each, Rs. 8 called up		
Less : Calls in arrears	(6,000)	15,94,000

1.4 Nature and Classes of Shares

Shares, as applied to the capital of a company, refer to the units into which the total share capital of a company is divided. Thus, a share is a fractional part of the share capital and forms the basis of ownership interest in a company. The persons who contribute money through shares are called shareholders.

The amount of authorised capital, together with the number of shares in which it is divided, is stated in the Memorandum of Association but the classes of shares in which the company's capital is to be divided, along with their respective rights and obligations, are prescribed by the Articles of Association of the company. As per Section 86 of The Companies Act, a company can issue two types of shares (1) preference shares, and (2) equity shares (also called ordinary shares).

1.4.1 Preference Shares

According to Section 85 of The Companies Act, 1956, a preference share is one, which fulfils the following conditions :

a) That it carries a preferential right to dividend to be paid either as a fixed amount payable to preference shareholders or an amount calculated by a fixed rate of the nominal value of each share before any dividend is paid to the equity shareholders.

b) That with respect to capital it carries or will carry, on the winding up of the company, the preferential right to the repayment of capital before anything is paid to equity shareholders.

However, notwithstanding the above two conditions, a holder of the preference share may have a right to participate fully or to a limited extent in the surpluses of the company as specified in the Memorandum or Articles of the company. Thus, the preference shares can be participating and non-participating. Similarly, these shares can be cumulative or non-cumulative, and redeemable or irredeemable.

1.4.2 Equity Shares

According to Section 85 of The Companies Act, 1956, an equity share is a share which is not a preference share. In other words, shares which do not enjoy any preferential right in the payment of dividend or repayment of capital, are termed as equity/ordinary shares. The equity shareholders are entitled to share the distributable profits of the company after satisfying the dividend rights of the preference share holders. The dividend on equity shares is not fixed and it may vary from year to year depending upon the amount of profits available for distribution. The equity share capital may be (i) with voting rights; or (ii) with differential rights as to voting, dividend or otherwise in accordance with such rules and subject to such conditions as may be prescribed.

Test your Understanding – I

State which of the following statements are true :

(a) A company is an artificial person.
(b) Shareholders of a company are liable for the acts of the company.
(c) Every member of a company is entitled to take part in its management.
(d) Company's shares are generally transferable.
(e) Share application account is a personal account.
(f) The director of a company must be a shareholder.
(g) Paid-up capital can exceed called up capital.
(h) Capital reserves are created from capital profits.
(I) At the time of issue of shares, the maximum rate of securities premium is 10%.
(j) The part of capital which is called up only on winding up is called reserve capital.
(k) Forfeited shares can not be issued at a discount.
(l) The shares originally issued at discount may be re-issued at a premium.

1.5 Issue of Shares

A salient characteristic of the capital of a company is that the amount on its shares can be gradually collected in easy instalments spread over a period of time depending upon its growing financial requirement. The first instalment is collected along with application and is thus, known as application money, the second on allotment (termed as allotment money), and the remaining instalment are termed as first call, second call and so on. The word final is suffixed to the last instalment. However, this in no way prevents a company from calling the full amount on shares right at the time of application.

The important steps in the procedure of share issue are :

- *Issue of Prospectus:* The company first issues the prospectus to the public. Prospectus is an invitation to the public that a new company has come into existence and it needs funds for doing business. It contains complete information about the company and the manner in which the money is to be collected from the prospective investors.
- *Receipt of Applications:* When prospectus is issued to the public, prospective investors intending to subscribe the share capital of the

company would make an application along with the application money and deposit the same with a scheduled bank as specified in the prospectus. The company has to get minimum subscription (Refer Box 1) within 120 days from the date of the issue of the prospectus. If the company fails to receive the same within the said period, the company cannot proceed for the allotment of shares and application money should be returned within 130 days of the date of issue of prospectus.

- *Allotment of Shares:* If minimum subscription has been received, the company may proceed for the allotment of shares after fulfilling certain other legal formalities. Letters of allotment are sent to those whom the shares have been alloted, and letters of regret to those to whom no allotment has been made. When allotment is made, it results in a valid contract between the company and the applicants who now became the shareholders of the company.

Box 1

Minimum Subscription

The minimum amount that, in the opinion of directors, must be raised to meet the needs of business operations of the company relating to:

- the price of any property purchased, or to be purchased, which has to be met wholly or partly out of the proceeds of issue;
- preliminary expenses payable by the company and any commission payable in connection with the issue of shares;
- the repayment of any money borrowed by the company for the above two matters;
- working capital; and
- any other expenditure required for the usual conduct of business operations.

It is to be noted that 'minimum subscription' of capital cannot be less than 90% of the issued amount according to SEBI (Disclosure and Investor Protection) Guidelines, 2000 [6.3.8.1 and 6.3.8.2]. If this condition is not satisfied, the company shall forthwith refund the entire subscription amount received. If a delay occurs beyond 8 days from the date of closure of subscription list, the company shall be liable to pay the amount with interest at the rate of 15% [Section 73(2)].

Shares of a company are issued either at *par, at a premium or at a discount.* Shares are to be issued at *par* when their issue price is exactly equal to their nominal value according to the terms and conditions of issue. When the shares of a company are issued more than its nominal value (face value), the excess amount is called *premium .* When the shares are issued at a price less than the face value of the share, it is known as shares issued at a *discount.*

Irrespective of the fact that shares are issued at par, premium or discount, the share capital of a company as stated earlier, may be collected in instalments payable at different stages.

1.6 Accounting Treatment

On application : The amount of money paid with various instalment represents the contribution to share capital and should ultimately be credited to share capital. However, for the sake of convenience, initially individual accounts are opened for each instalment. All money received along with application is deposited with a scheduled bank in a separate account opened for the purpose. The journal entry is as follows:

Bank A/c Dr.
To Share Application A/c
(Amount received on application for — shares @ Rs. ______ per share).

On allotment : When minimum subscription has been received and certain legal formalities on the allotment of shares have been duly compiled with, the directors of the company proceed to make the allotment of shares.

The allotment of shares implies a contract between the company and the applicants who now become the allottees and assume the status of shareholders or members.

Box 2
Allotment of Shares
(Implications from accounting point of view)

- It is customary to ask for some amount called “Allotment Money” from the allottees on the shares allotted to them as soon as the allotment is made.
- With the acceptance to the offer made by the applicants, the amount of application money received has to be transferred to share capital account as it has formally become the part of the same.
- The money received on rejected applications should either be fully returned to the applicant within Prescribed period of law/SEBI
- In case lesser number of shares have to be allotted, than those applied for the excess application money must be adjusted towards the amount due on allotment from the allottees.
- The effect of the later two steps is to close the share application account which is only a temporary account for share capital transactions.

The journal entries with regard to allotment of shares are as follows:

1. *For Transfer of Application Money*

   Share Application A/c Dr.

   To Share Capital A/c

   (Application money on _____ Shares allotted/ transferred to Share Capital)

2. *For Money refunded on rejected application*

   Share Application A/c Dr.

   To Bank A/c

   (Application money returned on rejected application for ___shares)

3. *For Amount Due on Allotment*

   Share Allotment A/c Dr.

   To Share Capital A/c

4. *For Adjustment of Excess Application Money*

   Share Application A/c Dr.

   To Share Allotment A/c

   (Application Money on __Shares @ Rs__per shares adjusted to the amount due on allotment).

5. *For Receipt of Allotment Money*

   Bank A/c Dr.

   To Share Allotment A/c

   (Allotment money received on ___Shares @ Rs. — per share Combined Account)

Sometimes *a combined account* for share application and share allotment called 'Share Application and Allotment Account' is opened in the books of a company. The combined account is based on the reasoning that allotment without application is impossible while application without allotment is meaningless. These two stages of share capital are closely inter-related. When a combined account is maintained, journal entries are recorded in the following manner:

1. *For Receipt of Application and Allotment*

   Bank A/c Dr.

   To Share Application and Allotment A/c

   (Money received on applications for shares @ Rs. _____ per share).

2. *For Transfer of Application Money and Allotment Amount Due*

   Share Application and Allotment A/c Dr.

   To Share Capital A/c

   (Transfer of application money to Share Capital Account for amount due or allotment of — Share @ Rs. _____ per share)

3. *For Money Refunded on Rejected Applications*

   Share Application and Allotment A/c Dr.

   To Bank A/c

   (Application money returned on rejected application for ___ shares)

4. *On Receipt of Allotment Amount*

   Bank A/c Dr.

   To Share Application and Allotment A/c

   (Balance of Allotment Money Received)

On Calls : Calls play a vital role in making shares fully paid-up and for realising the full amount of shares from the shareholders. In the event of shares not being fully called up till the completion of allotment, the directors have the authority to ask for the remaining amount on shares as and when they decide about the same. It is also possible that the timing of the payment of calls by the shareholders is determined at the time of share issue itself and given in the prospectus.

Two points are important regarding the calls on shares. First, the amount on any call should not exceed 25% of the face value of shares. Second, there must be an interval of at least one month between the making of two calls unless otherwise provided by the articles of association of the company.

When a call is made and the amount of the same is received, the journal entries are as given below:

1. *For Call Amount Due*

   Share Call A/c Dr.

   To Share Capital A/c

   (Call money due on ___Shares @ Rs. ____ per share)

2. *For Receipt of Call Amount*

   Bank A/c Dr.

   To Share Call A/c

   (Call money received)

The word/words First, Second, or Third must be added between the words "Share" and 'Call' in the Share Call account depending upon the identity of the call made. For example, in case of first call it will be termed as 'Share First Call Account', in case of second call it will be 'Share Second Call Account' and so on. Another point to be noted is that the words 'and Final' will also be added to the last call, say, if second call is the last call it will be termed as 'Second and Final Call' and if it is the third call which is the last call, it will be termed as 'Third and Final Call'. It is also possible that the whole balance after allotment may be collected in one call only. In that case the first call itself, shall be termed as the 'First and Final Call'.

Box 3

The following points should be kept in mind while issuing the share capital for public subscription :

1. The application money should be at least 5% of the face value of the share.
2. Calls are to be made as per the provisions of the articles of association.
3. Where there is no articles of association of its own, the following provisions of Table A will apply:
   - (a) A period of one month must elapse between two calls;
   - (b) The amount of call should not exceed 25% of the face value of the share;
   - (c) A minimum of 14 days' notice is given to the shareholders to pay the amount; and
   - (d) Calls must be made on a uniform basis on all shares within the same class.

Note: The procedure for accounting for the issue of both equity and preference shares is the same. To differentiate between the two the words 'Equity' and 'Preference' is prefixed to each and every instalment.

Illustration 1

Mona Earth Mover Ltd. decided to issue 12,000 shares of Rs.100 each payable at Rs.30 on application, Rs.40 on allotment, Rs.20 on first call and balance on second and final call. Applications are received for 13,000 shares. The directors decided to reject application of 1,000 shares and their application money being refunded in full. The allotment money is duly received on all the shares, and all sums due on calls are received except on 100 shares.

Record the transactions in the books of Mona Earth Movers Ltd.

Solution:

Books of Mona Earth Movers Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr.		3,90,000	
	To Share Application A/c			3,90,000
	(Application money on 13,000 shares @ Rs.30 per share received)			
	Share Application A/c Dr.		3,60,000	
	To Share Capital A/c			3,60,000
	(Application money transferred to share capital)			

	Share Allotment A/c Dr. To Share Capital A/c (Money due on allotment of 12,000 shares @ Rs. 40 per share)		4,80,000	4,80,000
	Share Application A/c Dr. To Bank A/c (Application money on 1,000 shares returned]		30,000	30,000
	Bank A/c Dr. To Share Allotment A/c (Money received on 12,000 shares @ Rs. 40 per share on allotment)		4,80,000	4,80,000
	Share First Call A/c Dr. To Share Capital A/c (Money due on 12,000 shares @ Rs. 20 per share on first Call)		2,40,000	2,40,000
	Bank A/c Dr. To Share First Call A/c (First Call money received except for 100 shares)		2,38,000	2,38,000
	Share Second and Final Call A/c Dr. To Share Capital A/c (Money due on 12,000 shares @ Rs. 10 per share on Second and final Call)		1,20,000	1,20,000
	Bank A/c Dr. To Share Second and Final Call A/c (Second and final call money received except for 100 shares)		1,19,000	1,19,000

Illustration 2

Eastern Company Ltd. issued 40,000 shares of Rs. 10 each to the public for the subscription of its share capital, payable at Rs. 4 on application, Rs. 3 on allotment and the balance on Ist and final call. Applications were received for 40,000 shares. The company made the allotment to the applicants in full. All the amounts due on allotment and first and final call were duly received.

Give the journal entries in the books of the company.

Solution:

Books of Eastern Company Limited
Journal

Date	Particulars		L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Bank A/c	Dr.		1,60,000	
	To Share Application A/c				1,60,000
	(Application money on 40,000 shares @ Rs.4 per share received)				
	Share Application A/c	Dr.		1,60,000	
	To Share Capital A/c				1,60,000
	(Application money transferred to share capital)				
	Share Allotment A/c	Dr.		1,20,000	
	To Share Capital A/c				1,20,000
	(Money due on allotment of 40,000 shares @ Rs. 3 per share)				
	Bank A/c	Dr.		1,20,000	
	To Share allotment A/c				1,20,000
	(Money received on 40,000 shares @ Rs. 3 per share on allotment)				
	Share First and Final Call A/c	Dr.		1,20,000	
	To Share Capital A/c				1,20,000
	(Money due on 40,000 shares @ Rs. 3 per share on First and final call)				
	Bank A/c	Dr.		1,20,000	
	To Share First and Final Call A/c				1,20,000
	(First and final call money received)				

Do it Yourself

On April 01, 2013, a limited company was incorporated with an authorised capital of Rs. 40,000 divided into shares of Rs. 10 each. It offered to the public for subscription of 3,000 shares payable as follows:

On Application	Rs. 3 per share
On Allotment	Rs. 2 per share
On First Call (One month after allotment)	Rs. 2.50 per share
On Second and Final Call	Rs. 2.50 per share

The shares were fully subscribed for by the public and application money duly received on April 15, 2013. The directors made the allotment on May 1, 2013.

How will you record the share capital transactions in the books of a company if the amounts due has been duly received, and the company maintains the combined account for application and allotment.

1.6.1 Calls in Arrears

It may happen that shareholders do not pay the call amount on due date. When any shareholder fails to pay the amount due on allotment or on any of the calls, such amount is known as 'Calls-in-Arrears'/'Unpaid Calls'. Calls-in-Arrears represent the debit balance of all the calls account. Such amount shall appear as 'Note to Accounts (Refer Chapter 3). However, where a company maintains 'Calls-in-Arrears' Account, it needs to pass the following additional journal entry:

Calls in Arrears A/c	Dr.
To Share First Call Account A/c	
To Share Second and Final Call Account A/c	
(Calls in arrears brought into account)	

The Articles of Association of a company may empower the directors to charge interest at a stipulated rate on calls in arrears. If the articles are silent in this regard, the rule contained in Table A shall be applicable which states that the interest at a rate not exceeding 5% p.a. shall have to be paid on all unpaid amounts on shares for the period intervening between the day fixed for payment and the time of actual payment thereof.

On receipt of the call amount together with interest, the amount of interest shall be credited to interest account while call money shall be credited to the respective call account or to calls-in-arrears account. When the shareholder makes the payment of calls-in-arrears together with interest, the entry will be as follows:

Bank A/c	Dr.
To Calls-in-Arrears A/c	
To Interest A/c	
(Calls-in-arrears received with interest)	

Note: If nothing is specified, there is no need to take the interest on calls-in-arrears account and record the above entry

Illustration 3

Cronic Limited issued 10,000 equity shares of Rs. 10 each payable at Rs. 2.50 on application, Rs. 3 on allotment, Rs. 2 on first call, and the balance of Rs. 2.50 on the final call. All the shares were fully subscribed and paid except of a shareholder having 100 shares who could not pay for the final call. Give journal entries to record these transactions.

Solution:

Books of Cronic Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c	Dr.		25,000	
	To Share Application A/c				25,000
	(Money received on applications for 10,000 shares @ Rs. 2.50 per share)				
	Equity Share Application A/c	Dr.		25,000	
	To Share Capital A/c				25,000
	(Transfer of application money on 10,000 shares to share capital)				
	Equity Share Allotment A/c	Dr.		30,000	
	To Share Capital A/c				30,000
	(Amount due on the allotment of 10,000 shares @ Rs. 3 per share)				
	Bank A/c	Dr.		30,000	
	To Share Allotment A/c				30,000
	(Allotment money received)				
	Share First Call A/c	Dr.		20,000	
	To Share Capital A/c				20,000
	(First call money due on 10,000 shares @ Rs. 2 per share)				
	Bank A/c	Dr.		20,000	
	To Share First Call A/c				20,000
	(First call money received)				
	Share Second and Final Call A/c	Dr.		25,000	
	To Share Capital A/c				25,000
	(Final call money due)				
	Bank A/c	Dr.		24,750	
	Call-in-Arrears A/c	Dr.		250	
	To Share Second and Final Call A/c				25,000
	(Final call money received except that of 100 shares)				

1.6.2 Calls in Advance

Sometimes some shareholders pay a part or the whole of the amount of the calls not yet made. The amount so received from the shareholders is known as "Calls-in-Advance". The amount received in advance is a liability of the company and should be credited to 'Call-in-Advance Account." The amount received will be adjusted towards the payment of calls as and when they becomes due. Table A of the Companies Act provides for the payment of interest on calls-in-advance at a rate not exceeding 6% per annum.

The following journal entry is recorded for the amount of calls received in advance.

Bank A/c	Dr.
To Calls-in-Advance A/c	
(Amount received on call-in-advance)	

On the due date of the calls, the amount of Calls-in-Advance' is adjusted by the following entry :

Calls-in-Advance A/c	Dr.
To Particular Call A/c	
(Calls-in-advance adjusted with the call money due)	

The balance in 'Calls-in-Advance' account is shown as a separate item on the liabilities side of company's balance sheet under the head 'current liabilities', as the sub-head under of the 'others current liabilities' but is not added to the amount of paid-up capital.

As Calls-in-Advance is a liability of the company, it is under obligation if provided by the Articles, to pay interest on such amount from the date of its receipt up to the date when appropriate call is due for payment. A stipulation is generally made in the Articles regarding the rate at which interest is payable. However, if Articles are silent on this account, Table A is applicable which provides for interest on calls in advance at a rate not exceeding 6% per annum.

The accounting treatment of interest on calls in advance is as follows:

1. *For Payment of Interest*

Interest on Calls in Advance A/c	Dr.
To Bank A/c	
(Interest paid on Calls-in-Advance)	

Or

2. *For Interest due*

Interest on Calls-in-Advance A/c	Dr.
To Sundry Shareholder's A/c	
(Interest paid on Calls-in-Advance)	

Illustration 4

Konica Limited registered with an authorised equity capital of Rs. 2,00,000 divided into 2,000 shares of Rs. 100 each, issued for subscription of 1,000 shares payable at Rs. 25 per share on application, Rs. 30 per share on allotment, Rs. 20 per share on first call and the balance as and when required.

Application money on 1,000 shares was duly received and allotment was made to them. The allotment amount was received in full, but when the first call was made, one shareholder failed to pay the amount on 100 shares held by him and another shareholder with 50 shares, paid the entire amount on his shares. The company did not make any other call.

Give the necessary journal entries in the books of the company to record these share capital transactions.

Solution:

Books of Konica Ltd.
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr. To Equity Share Application A/c (Money received on application for 1,000 shares @ Rs. 25 per share)		25,000	 25,000
	Equity Share Application A/c Dr. To Equity Share Capital A/c (Transfer of application money on 1,000 shares to share capital)		25,000	 25,000
	Equity Share Allotment A/c Dr. To Equity Share Capital A/c (Amount due on the allotment of 1,000 shares @ Rs. 30 per share)		30,000	 30,000
	Bank A/c Dr. To Equity Share Allotment A/c (Allotment money received)		30,000	 30,000
	Equity Share First Call A/c Dr. To Equity Share Capital A/c (First call money due on 1,000 shares @ Rs. 20 per share)		20,000	 20,000
	Bank A/c Dr. Calls-in-Arrears A/c Dr. To Equity Share First Call A/c To Calls-in-Advance A/c (First call money received on 900 shares and calls-in-advance on 50 shares @ Rs. 25 per share)		19,250 2,000	 20,000 1,250

In practice the entries for the amount received are recorded in the cash book and not in the journal (See Illustration 5).

Illustration 5

Unique Pictures Ltd. was registered with an authorised capital of Rs. 5,00,000 divided into 20,000, 5% preference shares of Rs. 10 each and 30,000 equity shares of Rs. 10 each. The company issued 10,000 preference and 15,000 equity shares for public subscription. Calls on shares were made as under :

	Equity Shares (Rs.)	*Preference Shares (Rs.)*
Application	2	2
Allotment	3	3
First Call	2.50	2.50
Second and Final Call	2.50	2.50

All these shares were fully subscribed. All the dues were received except the second and final call on 100 equity shares and on 200 preference shares. Record these transactions in journal. You are also required to prepare the cash book and balance sheet.

Solution:

Books of Unique Pictures Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Equity Share Application A/c	Dr.		30,000	
	5% Preference Share Application A/c	Dr.		20,000	
	To Equity Share Capital A/c				30,000
	To 5% Preference Share Capital A/c				20,000
	(Transfer of application money)				
	Equity Share Allotment A/c	Dr.		45,000	
	5% Preference Share Allotment A/c	Dr.		30,000	
	To Equity Share Capital A/c				45,000
	To 5% Preference Share Capital A/c				30,000
	(Amount due on allotment)				
	Equity Share First Call A/c	Dr.		37,500	
	5% Preference Share First Call A/c	Dr.		25,000	
	To Equity Share Capital A/c				37,500
	To 5% Preference Share Capital A/c				25,000
	(First call money due)				
	Call-in-Arrears A/c	Dr.		750	
	To Equity Share Second and Final Call A/c				250
	To 5% Preference Share Final Call A/c				500
	(For Calls-in-Arrears)				

Cash Book (Bank Column)

Dr. Cr.

Date	Receipts	L.F.	Amount (Rs.)	Date	Payments	L.F.	Amount (Rs.)
	Equity Share Application		30,000		Bal. c/d		2,49,250
	5% Preference Share Application		20,000				
	Equity Share Allotment		45,000				
	5% Preference Share Allotment		30,000				
	Equity Share First Call		37,500				
	5% Preference Share First Call		25,000				
	Equity Share Second & Final Call		37,250				
	5% Preference Share Second & Final Call		24,500				
			2,49,250				**2,49,250**

Balance Sheet of unique pictures as at . . . . .

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Shareholders' Funds		
a) Share capital	1	2,49,250
		2,49,250
II. Assets		
1. Current assets		
a) Cash and cash equivalents	2	2,49,250
		2,49,250

Notes to Accounts

1) Share Capital		
Authorised Capital		
30,000 Equity Shares of Rs. 10 each		3,00,000
20,000 5% Preference Shares of Rs. 10 each		2,00,000
		5,00,000
<u>*Issued Capital*</u>		
15,000 Equity Shares of Rs. 10 each		1,50,000
10,000 5% Preference Shares of Rs. 10 each		1,00,000
		2,50,000

<u>*Subscribed Capital*</u>		
Subscribed but not fully paid-up		
15,000 Equity Shares of Rs. 10 each	1,50,000	
Less : Calls-in-advance	250	1,49,750
10,000, 5% Preference Shares of Rs. 10 each	1,00,000	
Less : Calls-in-advance	500	99,500
		2,49,250
2) Cash and Cash Equivalents		
Cash at Bank		**2,49,250**

Illustration 6

Rohit & Company issued 30,000 shares of Rs.10 each payable Rs.3 on application, Rs.3 on allotment and Rs.2 on first call after two months. All money due on allotment was received, but when the first call was made a shareholder having 400 shares did not pay the first call and a shareholder of 300 shares paid the money for the second and final call of Rs.2 which had not been made as yet.

Give the necessary journal entries in the books of the company.

Solution:

Books of Rohit & Company
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr.		90,000	
	To Share Application A/c			90,000
	(Application money received on 30,000 shares @ Rs.3 per share)			
	Share Application A/c Dr.		90,000	
	To Share Capital A/c			90,000
	(Application money transferred to share capital account)			
	Share Allotment A/c Dr.		90,000	
	To Share Capital A/c			90,000
	(Allotment money due on 30,000 shares @ Rs.3 per share)			
	Bank A/c Dr.		90,000	
	To Share Allotment A/c			90,000
	(Allotment money received)			

	Share First Call A/c Dr.		60,000	
	To Share Capital A/c			60,000
	(First call money due on 30,000 shares @ Rs.2 per share)			
	Bank A/c Dr.		59,800	
	Call in Arrears A/c Dr.		800	
	To Share First Call A/c			60,000
	To Calls in Advance A/c			600
	(Money received in advance on the second call for 300 shares @ Rs.2 per share, and the first call not received on 400 shares @ Rs.2 per share)			

Do it Your self

1. A company issued 20,000 equity shares of Rs.10 each payable Rs.3 on application, Rs.3 on allotment, Rs.2 on first call and Rs.2 on second and the final call. The allotment money was payable on or before May 01, 2013; first call money on or before August Ist, 2013; and the second and final call on or before October Ist, 2013; 'X', whom 1,000 shares were allotted, did not pay the allotment and call money; 'Y', an allottee of 600 shares, did not pay the two calls; and 'Z', whom 400 shares were allotted, did not pay the final call. Pass journal entries and prepare the Balance Sheet of the company as at March 31, 2013.
2. Alfa Company Ltd. issued 10,000 shares of Rs.10 each for cash payable Rs.3 on application, Rs.2 on allotment and the balance in two equal instalments. The allotment money was payable on or before March 3, 2014; the first call money on or before 30 June, 2014; and the final call money on or before August, 31. 2014. Mr. 'A', to whom 600 shares were allotted, paid the entire remaining face value of shares allotted to him on allotment. Record journal entries in company's books and also exhibit the share capital in the balance sheet on the date.

1.6.3 Over Subscription

There are instances when applications for more shares of a company are received than the number offered to the public for subscription. This usually happens in respect of share issues of well-managed and financially strong companies and is said to be a case of 'Over Subscription'.

In such a condition, three alternatives are available to the directors to deal with the situation: (1) they can accept some applications in full and totally reject the others; (2) they can make a pro-rata allotment to all; and (3) they can adopt a combination of the above two alternatives which happens to be the most common course adopted in practice.

The problem of over subscription is resolved with the allotment of shares. Therefore, from the accounting point of view, it is better to place the situation of over subscription within the total frame of application and allotment, i.e. receipt of application amount, amount due on allotment and its receipt from the shareholders, and the same has been observed in the pattern of entries.

First Alternative : When the directors decide to fully accept some applications and totally reject the others, the application money received from rejected applications is fully refunded. For example, a company invited applications for 20,000 shares and received the applications for 25,000 shares. The directors rejected the applications for 5,000 shares which are in excess of the required number and refunded their application money in full. In this case, the journal entries on application and allotment will be as follows :

The journal entries on application and allotment according to this alternative are as follows:

1	Bank A/c To Share Application A/c (Money received on application for 25,000 shares @ Rs. _ per share)	Dr.
2	Share Application A/c To Share Capital A/c To Bank A/c (Transfer of money on application 20,000 for shares allotted and money refunded on applications for _ shares rejected)	Dr.
3	Share Allotment A/c To Share Capital A/c (Amount due on the allotment of 20,000 shares @ Rs. _ per share)	Dr.
4	Bank A/c To Share Allotment A/c (Allotment money received)	Dr.

Second Alternative : When the directors opt to make a proportionate allotment to all applicants (called 'pro-rata' allotment), the excess application money received is normally adjusted towards the amount due on allotment. In case, the excess application money received is more than the amount due on allotment of shares, such excess amount may either be refunded or credited to calls in advance.

For example, in the event of applications for 20,000 shares being invited and those received are for 25,000 shares, it is decieded to allot shares in the ratio of 4:5 to all applicants. It is a case of pro-rata allotment and the excess application money received on 5,000 shares would be adjusted towards the amount due on the allotment of 20,000 shares. In this case, the journal entries on application and allotment will be as follows.

1	Bank A/c To Share Application A/c (Application money received on 25,000 shares @ Rs. _ per Share)	Dr.
2	Share Application A/c To Share Capital A/c To Share Allotment A/c (Transfer of application money to share capital and the excess application money on 5000 shares credited to share allotment account)	Dr.
3	Share Allotment A/c To Share Capital A/c (Amount due on allotment of 25,000 share @ Rs. _ per share)	Dr.
4	Bank A/c To Share Allotment A/c (Allotment money received after adjusting the amount already received as excess application money)	Dr.

Third Alternative : When the application for some shares are rejected outrightly; and pro-rata allotment is made to the remaining applicants, the money on rejected applications is refunded and the excess application money received from applicants to whom pro-rata allotment has been made is adjusted towrds the amount due on the allotment of shares allotted.

For example, a company invited applications for 10,000 shares and received applications for 15,000 shares. the directors decided to reject the applications for 2,500 shares outright and to make a pro-rata allotment of 10,000 shares to the applicants for the remaining 12,500 shares so that four shares are allotted for every five shares applied. In this case, the money on applications for 2,500 shares rejected would be refunded fully and that on the remaining 2,500 shares (12,500 shares – 10,000 shares) would be adjusted against the allotment amount due on 10,000 shares allotted and credited to share allotment account, the journal entries on application and allotment recorded as follows:

1	Bank A/c To Share Application A/c (Money received on application for 15,000 shares @ Rs. _ per share)	Dr.
2	Share Application A/c	Dr.

To Share Capital A/c
To Share Allotment A/c
To Bank A/c
(Transfer of application money to share capital, and the excess application amount of pro-rata allottees credited to share allotment and the amount on rejected applications refunded)

3 Share Allotment A/c Dr.
To Share Capital A/c
(Amount due on the Allotment of 10,000 shares @ Rs. _ per share)

4 Bank A/c Dr.
To Share Allotment A/c
(Allotment money received after adjusting the amount already received as excess application money)

Illustration 7

Janta Papers Limited invited applications for 1,00,000 equity shares of Rs. 25 each payable as under:

On Application	Rs. 5.00 per share
On Allotment	Rs. 7.50 per share
On First Call (due two months after allotment)	Rs. 7.50 per share
On Second and Final Call (due two months after First Call)	Rs. 5.00 per share

Applications were received for 4,00,000 shares on January 01, 2011 and allotment was made on February 01, 2011.

Record journal entries in the books of the company to record these share capital transactions under each of the following circumstances:

1. The directors decide to allot 1,00,000 shares in full to selected applicants and the applications for the remaining 3,00,000 shares were rejected outright.
2. The directors decide to make a pro-rata allotment of 25 per cent of the shares applied for to every applicant; to apply the balance of application money towards amount due on allotment; and to refund the amount remaining thereafter.
3. The directors totally reject applications for 2,00,000 shares, accept full applications for 80,000 shares and make a pro-rata allotment of the 20,000 shares to remaining applicants the excess of application money is to be adjusted towards allotment and calls to be made.

Solution:

Books of Janta Papers Limited
Journal

First Alternative

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
2011 January 01	Bank A/c Dr.		20,00,000	
	To Equity Share Application A/c			20,00,000
	(Money received on applications for 4,00,000 shares @ Rs. 5 per share)			
February 01	Equity Share Application A/c Dr.		20,00,000	
	To Equity Share Capital A/c			5,00,000
	To Bank A/c			15,00,000
	(Transfer of application money on 1,00,000 shares to share capital and money refunded on rejected applications)			
February 01	Equity Share Allotment A/c Dr.		7,50,000	
	To Equity Share Capital A/c			7,50,000
	(Amount due on the allotment of 1,00,000 shares @ Rs 7.50 per share)			
	Bank A/c Dr.		7,50,000	
	To Equity Share Allotment A/c			7,50,000
	(Allotment money received)			
April 01	Equity Share First Call A/c Dr.		7,50,000	
	To Equity Share Capital A/c Dr.			7,50,000
	(First call money due on 1,00,000 shares @ Rs. 7.50 per share)			
June 01	Equity Share Second and Final Call A/c Dr.		5,00,000	
	To Equity Share Capital A/c			5,00,000
	(Final Call money due on 1,00,000 shares @ Rs. 5 per share)			
June 01	Bank A/c Dr.		5,00,000	
	To Equity Share Second and Final Call A/c			5,00,000
	(Final call money received)			

Second Alternative

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
2011 January 01	Bank A/c Dr.		20,00,000	
	To Equity Share Application A/c			20,00,000
	(Money received on applications for 4,00,000 shares @ Rs. 5 per share)			
February 01	Equity Share Application A/c Dr.		20,00,000	
	To Equity Share Capital A/c			5,00,000
	To Equity Share Allotment A/c			7,50,000
	To Bank A/c			7,50,000
	(Transfer of application money on Shares allotted to share capital, excess application amount credited to allotment account and money refunded on rejected applications)			
February 01	Equity Share Allotment A/c Dr.		7,50,000	
	To Equity Share Capital A/c			7,50,000
	(Amount due on the allotment of Rs. 1,00,000 shares @ Rs 7.50 per share)			
February 01	Bank A/c Dr.		7,50,000	
	To Equity Share Allotment A/c			7,50,000
	(Amount due on the allotment of Rs. 1,00,000 shares @ Rs 7.50 per share)			

Note : The entries regarding the two calls would be the same as under the preceding method.

Third Alternative

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
2011 January 01	Bank A/c Dr.		20,00,000	
	To Equity Share Application A/c			20,00,000
	(Money received on applications for 4,00,000 shares @ Rs. 5 per share)			

February 01	Equity Share Application A/c Dr.		20,00,000	
	To Equity Share Capital A/c			5,00,000
	To Equity Share Allotment A/c			1,50,000
	To Calls-in-Advance A/c			2,50,000
	To Bank A/c			11,00,000
	(Amount on share application adjusted to share capital, share allotment and calls-in-advance and the balance refunded including the money on rejected applications			
February 01	Equity Share Allotment A/c Dr.		7,50,000	
	To Equity Share Capital A/c			7,50,000
	(Transfer of application money on shares allotted to share capital and amount due on the allotment of 1,00,000 shares @ Rs. 7.50 per share			
	Bank A/c Dr.		6,00,000	
	To Equity Share Allotment A/c			6,00,000
	(Allotment money received)			
April 01	Equity Share First Call A/c Dr.		7,50,000	
	To Equity Share Capital A/c			7,50,000
	(First Call money due on 1,00,000 shares @ Rs. 7.50 per share)			
April 01	Bank A/c Dr.		6,00,000	
	Calls-in-Advance A/c Dr.		1,50,000	
	To Equity Share First Call A/c			7,50,000
	(Calls-in-advance adjusted against first call and the balance money on call received)			
June 01	Equity Share Second and Final Call A/c Dr.		5,00,000	
	To Equity Share Capital A/c			5,00,000
	(Final Call money due on 1,00,000 shares @ Rs. 5 per share)			
June 01	Bank A/c Dr.		4,00,000	
	Calls-in-Advance A/c Dr.		1,00,000	
	To Equity Share Second and Final Call A/c			5,00,000
	(Calls-in-advance adjusted against final call and the balance money on call received)			

Note: The balance of excess application money as a result of pro-rata distribution in journal entry 3 above is large enough to meet the demands on allotted shares in respect of the allotment and the two call money, as well as to leave an amount to be refunded along with that on the rejected applications.

Working Notes:

	(Rs.)	(Rs.)
Excess Application Money		15,00,000
Less Transfers :		
Share Allotment —		
20,000 shares @ Rs. 7.50	1,50,000	
Share Calls —		
20,000 shares @ Rs. 12.50	2,50,000	4,00,000[1]
Amount to be refunded (including that on the rejected applications)		11,00,000

1.6.4 Under Subscription

Under subscription is a situation where number of shares applied for is less than the number for which applications have been invited for subscription. For example, a comapny offered 2 lakh shares for subscription to the public but the applications were received for 1,90,000 shares, only. In such a situation, the allotment will be confirmed to 1,90,000 shares and entries shall be made accordingly. However, as stated earlier, it must be ensured that the company has received the minimum subscriptions (not less than 90% of the offer otherwise the procedure for issue of shares cannot proceed further and the company will have to refund the entire subscription amount received.

1.6.5 Issue of Shares at a Premium

It is quite common for the shares of financially strong and well-managed companies to be issued at a premium, i.e. at an amount more than the nominal or par value of shares. Thus, when a share of the nominal value of Rs. 100 is issued at Rs. 105, it is said to have been issued at a premium of 5 per cent.

When the issue of shares is at a premium, the amount of premium may technically be called at any stage of the issue of shares. However, premium is generally called with the amount due on allotment, sometimes with the application money and rarely with the call money. The premium amount is credited to a separate account called 'Securities Premium Account' and is shown on the liabilities side of the company's balance sheet under the head 'Reserves and Surpluses'. It can be used only for the following four purposes as laid down by Section 78 of The Companies Act 1956:

(a) to issue fully paid bonus shares to an extent not exceeding unissued share capital of the company;

(b) to write-off preliminary expenses of the company;

(c) to write-off the expenses of, or commission paid, or discount allowed on any of the shares or debentures of the company; and

(d) to pay premium on the redemption of preference shares or debentures of the company.

The Journal entries for shares are issued at a premium are as follows:

1. For *Premium Amount called with Application money*

(a) Bank A/c Dr.

To Share Application A/c

(Money received on application for — shares @ Rs. — per share including premium)

Share Application A/c Dr.

To Share Capital A/c

To Securities Premium A/c

(Transfer of application money to share capital and securities premium account)

2. *Premium Amount called with Allotment Money*

(a) Share Allotment A/c Dr.

To Share Capital A/c

To Securities Premium A/c

(Amount due on allotment of shares @ Rs — per share including premium)

(b) Bank A/c Dr.

To Share Allotment A/c

(Allotment money received including premium)

Illustration 8

Jupiter Company Limited issued 35,000 equity shares of Rs. 10 each at a premium of Rs.2 payable as follows:

On Application	Rs. 3
On Allotment	Rs. 5 (including premium)
Balance on First and Final Call	

The issue was fully subscribed. All the money was duly received.

Record journal entries in the books of the company.

Solution:

Books of Jupiter Company Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr.		1,05,000	
	To Equity Share Application A/c			1,05,000
	(Money received on applications for 35,000 shares @ Rs. 3 per share)			
	Equity Share Application A/c Dr.		1,05,000	
	To Equity Share Capital A/c			1,05,000
	(Transfer of application money on allotment to share capital)			
	Equity Share Allotment A/c Dr.		1,75,000	
	To Equity Share Capital A/c			1,05,000
	To Securities Premium A/c			70,000
	(Amount due on allotment of 35,000 shares @ Rs. 5 per share including premium)			
	Bank A/c Dr.		1,75,000	
	To Equity Share Allotment A/c			1,75,000
	(Money received including premium)			
	Equity Share First and Final Call A/c Dr.		1,40,000	
	To Equity Share Capital A/c			1,40,000
	(Amount due on First and Final Call of Rs. 4 per share on 35,000 shares)			
	Bank A/c Dr.		1,40,000	
	To Equity Share First and Final Call A/c			1,40,000
	(Money received on First and Final Call)			

1.6.6 Issue of Shares at a Discount

There are instances when the shares of a company are issued at a discount, i.e. at an amount less than the nominal or par value of shares, the difference between the nominal value and issue price representing discount on the issue of shares. For example, when a share of the nominal value of Rs. 100 is issued at Rs. 98, it is said to have been issued at a discount of two per cent.

As a general rule, a company cannot ordinarily issue shares at a discount. It can do so only in cases such as 'reissue of forfeited shares' (to be discussed later) and in accordance with the provisions of section 79 of The Companies Act, 1956.

It states that a company is permitted to issue shares at a discount provided the following conditions are satisfied:

(a) The issue of shares at a discount is authorised by an ordinary resolution passed by the company at its general meeting and sanctioned by the Company Law Board now Central Government.
(b) The resolution must specify the maximum rate of discount at which the shares are to be issued but the rate of discount must not exceed 10 per cent of the nominal value of shares. The rate of discount can be more than 10 per cent if the Government is convinced that a higher rate is called-for under special circumstances of a case.
(c) At least one year must have elapse since the date on which the company became entitled to commence the business.
(d) The shares are of a class which has already been issued.
(e) The shares issued within two months from the date of receiving sanction for the same from the Government or within such extended period as the Government may allow.
(f) If the offer prospectus at the date of issue must mention particulars of the discount allowed on the issue of shares.

Whenever shares are issued at a discount, the amount of discount is brought into the books at the time of allotment by debiting an account called 'Discount on the Issue of Shares Account'. The journal entry to be passed for the purpose is as given below:

Share Allotment A/c	Dr.
Discount on the Issue of Shares A/c	Dr.
Share Capital A/c	
(Amount due on allotment of — shares @ Rs — per share and discount on issue brought into account)	

Discount on the Issue of Shares, being a loss of capital mature to the company, will be set off from 'Securities Premium' or written-off Through 'Statement of Profit and Loss over a period of 3 to 5 years as per the guidlines of ICAI.

Illustration 9

Fine Arts Limited issued to the public for subscription of 10,000 shares of Rs.10 each at a discount of 10% payable at Rs. 4 on application, Rs. 3 on allotment and Rs.2 on Ist and the final call. The issue was fully subscribed and all the money was duly received.

Write journal entries for the above in the books of the company.

Solution:

Books of Fine Arts Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr.		40,000	
	To Share Application A/c			40,000
	(Application money received on 10,000 shares @ Rs. 4 per share)			
	Share Application A/c Dr.		40,000	
	To Share Capital A/c			40,000
	(Application money transferred to Share Capital)			
	Share Allotment A/c Dr.		30,000	
	Discount on Issue of Share A/c Dr.		10,000	
	To Share Capital A/c			40,000
	(Amount due @ Rs. 3 per share on Allotment and @ Re. 1 per share discount on 10,000 shares allotted)			
	Bank A/c Dr.		30,000	
	To Share Allotment A/c			30,000
	(Allotment money received on 10,000 shares)			
	Share First and Final call A/c Dr.		20,000	
	To Share Capital A/c			20,000
	(Final Call of Rs. 2 per share due on 10,000 shares)			
	Bank A/c Dr.		20,000	
	To Share First and Final Call A/c			20,000
	(Final call money received on 10,000 shares)			

1.6.7 Issue of Shares for Consideration other than Cash

There are instances where a company enters into an arrangement with the vendors from whom it has purchased assets, whereby the latter agrees to accept, the payment in the form of fully paid shares of the company issued to them. Normally, no such cash is received for issue of shares. These shares can also be issued either at par, at premium or at discount, and the number of shares to be issued will depend upon the price at which the shares are issued and the amount payable to the vendor. The number of shares to be issued to the vendor will be calculated as follows:

$$\text{No. of shares to be issued} = \frac{\text{Amount Payable}}{\text{Issue Price}}$$

For example, Rahul Limited purchased building from Handa Limited for Rs.5,40,000 and the payment is to be made by the issue of shares of Rs.100 each. The number of shares to be issued shall be worked out as follows in different situations :

(a) *When shares are issued at par, i.e. at Rs.100*

$$\text{Number of shares to be issued} = \frac{\text{Amount Payable}}{\text{Issue Price}}$$

$$= \frac{\text{Rs. 5,40,000}}{\text{Rs. 100}}$$

$$= \text{5,400 shares}$$

(b) *When shares issued at a discount of 10%,i.e. at Rs.90 (100 – 10)*

$$\text{Number of shares to be issued} = \frac{\text{Amount Payable}}{\text{Issue Price}}$$

$$= \frac{\text{Rs. 5,40,000}}{\text{Rs. 90}}$$

$$= \text{6,000 shares}$$

(c) *When shares issued at premium of 20%,i.e. at Rs.120 (100 + 20)*

$$\text{Number of shares to be issued} = \frac{\text{Amount Payable}}{\text{Issue Price}}$$

$$= \frac{\text{Rs. 5,40,000}}{\text{Rs. 120}}$$

$$= \text{4,500 shares}$$

The journal entries recorded for the share issued for consideration other than cash in above situations will be as follows :

Books of Rahul Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Building A/c Dr. To Handa Limited (Building purchased)		5,40,000	 5,40,000

(a)	*When shares are issued at par*			
	Handa Limited Dr.		5,40,000	
	To Share Capital A/c			5,40,000
	(5,400 Shares issued at par)			
(b)	*When shares are issued at Discount of 10%*			
	Handa Limited Dr.		5,40,000	
	Discount on Issue of Shares A/c Dr.		60,000	
	To Share Capital A/c			6,00,000
	(6,000 shares issued at Rs.90 per share)			
(c)	*When shares are issued at premium of 20%*			
	Handa Limited Dr.		5,40,000	
	To Share Capital A/c			4,50,000
	To Securities Premium A/c			90,000
	(4,500 shares issued at Rs.120 per share)			

Illustration 10

Jindal and Company purchased a machine from High Life Machine Limited for Rs.3,80,000. As per purchase agreement, Rs. 20,000 were paid in cash and balance by issue of shares of Rs.100 each. What will be the entry passed if the share are issued :

(a) at par
(b) at 10% discount
(c) at 20% premium

Solution:

Number of shares will be calculated as follows:

i) When shares issued at par

$$\frac{\text{Rs. } 3,60,000}{\text{Rs.}100} = 3,600 \text{ shares}$$

ii) When shares issued at discount

$$\frac{\text{Rs. } 3,60,000}{\text{Rs.}90} = 4,000 \text{ shares}$$

iii) When shares issued at premium

$$\frac{\text{Rs. } 3,60,000}{\text{Rs.}120} = 3,000 \text{ shares}$$

Books of Jindal and Company
Journal

Date	Particulars		L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Machine A/c	Dr.		3,80,000	
	To Bank A/c				20,000
	To High Life machine Limited				3,60,000
	(Machine purchased and Rs.20,000 paid in cash and the balance paid by issue of share)				
(a)	*When shares are issued at par*				
	High Life Machine Limited	Dr.		3,60,000	
	To Share Capital A/c				3,60,000
	(3,600 Shares of Rs.100 each)				
(b)	*When shares are issued at discount*				
	High Life Machine Limited	Dr.		3,60,000	
	Discount on Issue of Shares A/c	Dr.		40,000	
	To Share Capital A/c				4,00,000
	(4,000 shares of Rs.90 per share issued at discount)				
(c)	*When shares are issued at premium*				
	High Life Machine Limited	Dr.		3,60,000	
	To Share Capital A/c				3,00,000
	To Securities Premium A/c				60,000
	(3,000 shares issued at Rs.120 per share)				

Test your Understanding – II

Choose the Correct Answer.

(a) Equity share holders are :
- (i) creditors
- (ii) owners
- (iii) customers of the company
- (iv) none of the above

(b) Nominal share capital is :
- (i) that Part of the authorised capital which is issued by the company.
- (ii) the amount of capital which is actually applied for by the prospective shareholders.
- (iii) the maximum amount of share capital which a company is authorised to issue.
- (iv) the amount actually paid by the shareholders.

(c) Interest on calls-in-arrears is charged according to "Table A" at :
   (i) 5%
   (ii) 6%
   (iii) 8%
   (iv) 11%

(d) Money received in advance from shareholders before it is actually called-up by the directors is :
   (i) debited to calls-in-advance account
   (ii) credited to calls-in-advance account
   (iii) debited to calls account
   (iv) none of the above

(e) Shares can be forfeited :
   (i) for non-paymnt of call money
   (ii) for failure to attend meetings
   (iii) for failure to repay the loan to the bank
   (iv) for which shares are pledged as a security

(f) The balance of share forfeited account after the reissue of forfeited shares is transferred to :
   (i) general reserve
   (ii) capital redemption reserve
   (iii) capital reserve
   (iv) reveneue reserve

(g) Balance of share forfeiture account is shown in the balance sheet under the item :
   (i) current liabilities and provisions
   (ii) reserves and surpluses
   (iii) share capital
   (iv) unsecured loans

1.7 Forfeiture of Shares

It may happen that some shareholders fail to pay one or more instalments, viz. allotment money and/or call money. In such circumstances, the company can forfeit their shares, i.e. cancel their allotment and treat the amount already received thereon as forfeited to the company within the framework of the provisions in its articles. There provisions are usually based on Regulations 29 to 35 of the Table A which authorise, the directors to forefeit the shares for non-payment of calls made. For this purpose, they have to strictly follow the procedure laid down in this regard. Following is the accounting treatment of shares issued at par, premium or at a discount.

Forfeiture of Shares issued at Par: Following in the entry for forfeiture of shares issued at par:

Share Capital A/c Dr.
    To Share Forfeiture A/c
    To Share Allotment A/c
    To Share Calls A/c (individually)
(..... shares forfeited for non-payment of allotment money and calls made)

Note : In case 'Calls-in-Arrears' account is maintained by a company, 'Calls-in-Arrears' account should be credited in the above entry instead of 'Share Allotment' and/or 'Share Call or Calls' account.

The balance of shares forfeited account is shown as an addition to the total paid-up capital of the company under the head 'Share Capital' on the liabilities side of the balance sheet till the forfeited shares are reissued.

Illustration 11

Handa Limited issued 10,000 equity shares of 100 each payable at follows: Rs. 20 on application, Rs. 30 on allotment, Rs. 20 on first call and Rs. 30 on second and final call 10,000 shares were applied for and allotment. All money due was received with the exception of both calls on 300 shares held by Supriya. These shares were forfeited. Give necessary journal entries.

Solution

Books of Handa Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr. To Share Application A/c (Application money on 10,000 shares @Rs.20 per share received)		2,00,000	 2,00,000
	Share Application A/c Dr. To Share Capital A/c (Application money transferred to share capital)		2,50,000	 2,50,000
	Share Allotment A/c Dr. To Share Capital A/c (Money due on allotment of 10,000 shares @Rs. 30 per share)		3,00,000	 3,00,000
	Bank A/c Dr. To Share Allotment A/c (Money received on 10,000 shares @ Rs. 30 per share on allotment)		3,00,000	 3,00,000
	Share First Call A/c Dr. To Share Capital A/c (Money due on 10,000 shares @ Rs. 20 per share on Ist Call)		2,00,000	 2,00,000

	Bank A/c Dr. To Share First Call A/c (First call money received except for 300 shares)		1,94,000	 1,94,000
	Share Second and Final Call A/c Dr. To Share Capital A/c (Money due on 10,000 shares @ Rs. 30 per share on Second and Final Call)		3,00,000	 3,00,000
	Bank A/c Dr. To Share Second and Final Call A/c (Second and Final Call money received except for 300 shares)		2,91,000	 2,91,000
	Share Capital A/c Dr. To Share First Call A/c To Share Second and Final Call A/c To Share Forfeiture A/c (Three hundred shares Forfeited)		30,000	 6,000 9,000 15,000

Forfeiture of Shares issued at a Premium: If shares were initially issued at a premium and the premium amount has been fully realised, but some of the shares are forfeited due to non-payment of call money, the accounting for treatment forfeiture shall be on the same pattern as in the case of shares issued at par. The important point to be noted in this context is that the securities premium account is not to be debited at the time of forfeiture if the premium has been received in respect of the forefeited share.

In case, however, if the premium amount has not been received, either wholly or partially, in respect of the shares forfeited, the securities Premium Account will also be debited with the amount of premium not received along with the Share Capital Account at the time forfeiture. This will usually be the case when even the amount due on allotment has not been received. Thus, the journal entry to record the forfeiture of shares issued at a premium on which premium has not been fully received, will be :

Share Capital A/c Dr.
Securities Premium A/c Dr.
To Share Forfeiture A/c
To Share Allotment A/c
and/or
To Share Calls A/c (individually)
(….. shares forefeited for non-payment of allotment money and calls made)

Note: If Calls-in-Arrears Account is maintained, Calls-in-Arrears Account is credited and not the Share Allotment and/or Share Call/Calls Accounts.

Illustration 12

Sahil, a share holder, failed to pay the money for second and final call of Rs. 20 on 1,000 shares issued to him at Rs. 120 (face value of Rs. 100 per share). His shares were forfeited after the second and final call. Give the necessary journal entry for forefeiture of the shares.

Solution:

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Share Capital A/c	Dr.		1,00,000	
	To Share second and Final Call A/c				20,000
	To Share Forfeiture A/c				80,000
	(Forfeiture of 1000 shares for non-payment of the second and final call)				

Illustration 13

Sunena, a shareholder holding 500 shares of Rs.10 each, did not pay the allotment money of Rs. 4 per share (including a premium of Rs. 2) and the first and final call of Rs. 3. Her shares were forfeited after the first and final call. Give journal entry for forefeiture of the shares.

Solution:

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Share Capital A/c	Dr.		5 ,000	
	Securities Premium A/c	Dr.		1,000	
	To Share Allotment A/c				2,000
	To Share first and final Call A/c				1,500
	To Share Forfeiture A/c				2,500
	(Forfeiture of 500 shares for non-payment of first and final call)				

Forfeiture of Shares Issued at a Discount: Where shares forfeited were initially issued at a discount, the discount applicable to such shares must be cancelled or written back. Hence, the Discount on Issue of Shares Account should be credited at the time of forfeitures. So, that the balance on 'Discount on Issue of Shares Account' relates only to the remaining shares forming part of Share Capital Account. Thus, the journal entry to record the forfeiture will be :

Share Capital A/c	Dr.	
To Share Forfeiture A/c		
To Discount on Issue of Shares		
To Share Allotment A/c		
To Share Calls A/c		
or		
To Calls-in-Arrears A/c		
(Forefeiture of ..... shares for non-payment of allotment money and the calls made).		

Illustration 14

Madan Limited invited application for 20,000 shares of Rs. 100 each at a discount of 10%, payable at Rs. 25 on application, Rs. 25 on allotment, Rs. 25 on first call and Rs. 15 on second and final call. Ritu who applied for 1,000 shares was allotted 600 shares and the excess application money adjusted against the allotment money on the shares allotted. These shares were forfeited after the first call. Journalise the transaction for forfeiture after she having failed to pay:

1. The allotment money and the first call, and
2. the first call only.

Solution:

Books of Madan Limited
Journal

1. When the Allotment and first call is not paid

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Share Capital A/c Dr.		51,000	
	To Discount on Issue of Shares A/c			6,000
	To Share Allotment A/c			5,000
	To Share First Call A/c			15,000
	To Share Forfeiture A/c			25,000
	(600 shares forfeited after First Call for non-payment of allotment and First Call money)			

Note: The amount due on allotment was Rs. 5,000 only as the excess application money of Rs. 10,000 had been adjusted against the allotment money of Rs. 15,000 due from her.

2. When only the first call is not paid

Date	Particulars	L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Share Capital A/c Dr.		51,000	
	To Discount on issue of shares A/c			6,000
	To Share First Call A/c			15,000
	To Share Forfeiture A/c			30,000
	(600 shares forfeited after First Call on non-payment of First Call money)			

Illustration 15

Ashok Limited issued 3,00,000 equity shares of Rs. 10 each at a premium of Rs. 2 per share, payable at Rs. 3 on application, Rs. 5 on allotment (including premium) and the balance in two calls of equal amount.

Applications were received for 4,00,000 shares and pro-rata allotment was made to all the applicants. The excess application money was adjusted towards allotment. Mukesh who was allotted 800 shares failed to pay both the calls and his shares were forfeited after the second call. Record necessary journal entries in the books of Ashok Limited and also show the balance sheet:

Solution:

Books of Ashok Limited
Journal

Date	Particulars	L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Bank A/c Dr.		12,00,000	
	To Equity Share Application A/c			12,00,000
	(Application money received on 4,00,000 shares)			
	Equity Share Application A/c Dr.		12,00,000	
	To Equity Share Capital A/c			9,00,000
	To Equity Share Allotment A/c			3,00,000
	(Application money on 3,00,000 shares transferred to share capital account and the excess amount adjusted to share allotment account)			
	Equity Share Allotment A/c Dr.		15,00,000	
	To Equity Share Capital A/c			9,00,000
	To Securities Premium A/c			6,00,000
	(Allotment money due on 3,00,000 shares)			

	Bank A/c Dr.		12,00,000	
	To Equity Share Allotment A/c			12,00,000
	(Allotment amount received after adjusting excess money received with application)			
	Equity Share First Call A/c Dr.		6,00,000	
	To Equity Share Capital A/c			6,00,000
	(First Call amount due on 3,00,000 shares)			
	Bank A/c Dr.		5,98,400	
	Calls-in-arrears A/c Dr.		1,600	
	To Equity Share First Call A/c			6,00,000
	(First Call amount received on 2,99,200 shares)			
	Equity Share Second and Final Call A/c Dr.		6,00,000	
	To Equity Share Capital A/c			6,00,000
	(Second Call amount due)			
	Bank A/c Dr.		5,98,400	
	Calls in Arrears A/c Dr.		1,600	
	To Equity Share Second and Final Call A/c			6,00,000
	(Amount on 2,99,200 shares received)			
	Equity Share Capital A/c Dr.		8,000	
	To Share Forfeiture A/c			4,800
	To Call in Arrears A/c			3,200
	(Forfeiture of 800 shares)			

Balance Sheet of Ashok Limited as on ....

Particulars	*Note No.*	*Amount (Rs.)*
I EQUITY AND LIABILITIES		
1) Shareholders' Funds		
(a) Share Capital	1	29,96,800
(b) Reserves and Surplus	2	6,00,000
		35,96,800
II ASSETS		
1) Current Assets		
Cash and Cash Equivalents	3	35,96,800
		35,96,800

Notes to Accounts

1) *Share Capital*		
Authorised Capital		
... Equity shares of Rs. 10 each		
Issued Capital		
3,00,000 Equity shares of Rs. 10 each		**30,00,000**
Subscribed Capital		
Subscribed and Fully Paid-up		
2,99,200 Equity shares of Rs. 10 each		29,92,000
Add: Share forfeiture accounts		4,800
		29,96,800
2) *Reserves and Surplus*		
Securities Premium Reserve		**6,00,000**
3) *Cash and Cash Equivalents*		
Cash at bank		**35,96,800**

Illustration 16

High Light India Ltd. invited applications for 30,000 Shares of Rs. 100 each at a premium of Rs. 20 per share payable as follows :

On Application	Rs. 40 (including Rs.10 premium)
On Allotment	Rs. 30 (including Rs.10 premium)
On First Call	Rs. 30
On Second & Final Call	Rs. 20

Applications were received for 40,000 shares and pro-rata allotment was made on the application for 35,000 share. Excess application money is to be utilised towards allotment.

Rohan to whom 600 Shares allotted failed to pay the allotment money and his shares were forfeited after allotment.

Aman who applied for 1,050 shares failed to pay first call and his share were forfeited after first Call.

Second and final call was made. All the money due on second call have been received.

Of the shares forfeited, 1,000 share were reissued as fully paid-up for Rs. 80 per share, which included the whole of Aman's shares.

Record necessary journal entries in the books of High Light India Ltd.

Solution:

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c	Dr.		16,00,000	
	To Share Application A/c				16,00,000
	(Application money received on 40,000 shares)				
	Share Application A/c	Dr.		14,00,000	
	To Share Capital A/c				9,00,000
	To Securities Premium A/c				3,00,000
	To Share Allotment A/c				2,00,000
	(Application money transferred to share capital account, securities premium account and the excess money transfered to share allotment account)				
	Share Allotment A/c	Dr.		9,00,000	
	To Share Capital A/c				6,00,000
	To Securities Premium A/c				3,00,000
	(Money due on allotment)				
	Share Application A/c	Dr.		2,00,000	
	To Bank A/c				2,00,000
	(Amount returned on 500 shares)				
	Bank A/c	Dr.		6,86,000	
	To Share Application A/c				6,86,000
	(Amount received in allotment)				
	Share Capital A/c	Dr.		30,000	
	Securities Premium A/c	Dr.		12,000	
	To Share Allotment A/c				14,000
	To Share Forfeiture A/c				28,000
	(Forfeiture of 600 shares of Rohan for non-payment of allotment money)				
	Share First Call A/c	Dr.		8,82,000	
	To Share Capital A/c				8,82,000
	(First Call money due on 29,400 shares)				

	Bank A/c Dr. To Share First Call A/c (First call money received on 28,500 shares)		8,55,000	 8,55,000
	Share Capital A/c Dr. To Share First Call A/c To Share Forfeiture A/c (Forfeiture of 900 Aman Shares)		72,000	 27,000 45,000
	Share second & Final Call A/c Dr. To Share Capital A/c (Second & Final Call money due on 28,500 shares)		5,70,000	 5,70,000
	Bank A/c Dr. To Share second & Final Call A/c (Due money received)		5,70,000	 5,70,000
	Bank A/c Dr. Share Forfeiture A/c Dr. To Share Capital A/c (Reissue of 1,000 forfeited shares)		80,000 20,000	 1,00,000
	Share Forfeiture A/c Dr. To Capital Reserve (Profit on 1,000 reissued shares transferred to capital reverve)		29,666 29,666	

Working Notes :

(I) Excess amount received on Rohan's application

Rohan has been alloted = 600 Shares

He must have applied for $\frac{\text{Rs. } 35,000}{\text{Rs. } 30,000} \times 600$ 700 Shares

			Rs.
Amount received from Rohan	= 700	Rs. 40	28,000
Amount Adjusted on Application	= 600	Rs. 40	(24,000)
Amount Adjusted on Allotment			**4,000**
Money due on Allotment	= 600	Rs. 30	18,000
Money Adjusted			(4,000)
Balance due on Allotment			**14,000**

(II) Amount recieved on allotment

Total Amount due on Allotment = Rs. 30,000 Rs. 30		= 9,00,000
Amount received on Application		(2,00,000)
		7,00,000
Amount not received on Rohan's Share		(14,000)
Money received on First Call		**6,86,000**

(III) First Call money due on 29,400 shares

	29,400 Rs. 30 =	8,82,000
Application money not received on 900 Shares	900 Rs. 30	(27,000)
		8,55,000

(IV) 1000 shares have been reissued including 900 shares of Aman and Balance 100 shares of Rohan

Profit on 100 shares $= \frac{28,000}{600} \times 100$	=	4,666
Profit in 900 shares	=	45,000
		49,666
Less: Loss on issue of 1,000 shares		(20,000)
		29,666

(V) Balance in Share Forfeiture Account of 500 shares

$$\text{Rs. } \frac{28,000}{600} \times 500 = \text{Rs. } 23,334$$

Do it Yourself

1. A company forfeited 100 equity shares of Rs.10 each issued at a premium of 20% for non-payment of final call of Rs.5 including the premium. Show the journal entry to be passed for forefeiture of shares.
2. A company forfeited 800 equity shares of Rs.10 each issued at a discount of 10% for non-payment of two calls of Rs.2 each. Calculate the amount forfeited by the company and pass the journal entry for forefeiture of the shares.

Illustration 17

X Ltd. issued for public subscription 40,000 equity shares of Rs. 10 each at premium of Rs. 2 per share payable as under :

On application	Rs. 4 per share
On Allotment	Rs. 5 per share (including premium)
On Call	Rs. 3 per share

Applications were received for 60,000 shares. Allotment was made pro-rata to the applicants for 48,000 shares, the remaining applications being rejected. Money overpaid on application was applied towards sums due on allotment.

Shri Chitnis, to whom 1,600 shares were allotted, failed to pay the allotment money and Shri Jagdale, to whom 2,000 shares were allotted, failed to pay the call money. These shares were subsequently forfeited.

Record journal entries in the books of the company to record the above transactions.

Solution:

Books of X Ltd.
Journal

Date	Particulars		L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Bank A/c	Dr.		2,40,000	
	To Equity Share Application A/c				2,40,000
	(Money received on applications for 60,000 shares @ Rs. 4 per share)				
	Equity Share Application A/c	Dr.		2,40,000	
	To Equity Share Capital A/c				1,60,000
	To Equity Share Allotment A/c				32,000
	To Bank a/c				48,000
	(Application amount transferred to share capital, money refunded on rejected applications and excess application money under pro-rata distribution credited to share allotment)				
	Equity Share Allotment A/c	Dr.		2,00,000	
	To Equity Share Capital A/c				1,20,000
	To Securities Premium A/c				80,000
	(Amount due on allotment of 40,000 shares @ Rs. 5 per share including premium)				
	Bank A/c	Dr.		1,61,280	
	Calls-in-Arrears A/c	Dr.		6,720	
	To Equity Share Allotment A/c				1,68,000
	(Money received consequent upon allotment)				
	Equity Share Call A/c	Dr.		1,20,000	
	To Equity Share Capital A/c				1,20,000
	(First call money due on 40,000 shares @ Rs. 3 per share)				

	Bank A/c Dr.		1,09,200	
	Calls-in-Arrears A/c Dr.		10,800	
	To Equity Share Call A/c			1,20,000
	(Money received on first call)			
	Equity Share Capital A/c Dr.		36,000	
	Securities Premium A/c Dr.		3,200	
	To Share For Forfeiture A/c			21,680
	To Call-in-Arrears A/c			17,520
	(Entry for forfeiture of 3,600 shares)			

Working Notes :

I. Amount received on allotment **Rs.**

a) Amount due on allotment 2,00,000
40,000 shares Rs. 5 per share

b) Amount actually due on allotment 2,00,000
Amount due on allotment
Less excess Application amount 32,000
Applied for allotment
Amount actually due 1,68,000

c) Allotment amount due from Chitnis 8,000
Allotment money on Chitnis's share
1,600 shares Rs. 5 per share
Less excess application money paid 1,280
Due to pro-rata distribution –
(1,920 shares – 1,600 shares) 320 4 6,720

Allotment amount due from Chitnis

According to the ratio of pro-rata distribution (40,000 shares : 48,000 shares), for 1,600 shares to be allotted, Chitnis must have applied for 1,920 shares (1,600 shares 6/5).

d) Allotment money received 1,68,000
(Amount actually due on Allotment)
Less Amount unpaid by Chitnis (6,720)

Amount received 1,61,280

II. Balance on Shares Forfeited Account

Amount paid by Chitnis :
1,920 Shares applied for Rs. 4 per share 7,680
Amount paid by Jagdale :

2,000 Shares (Rs. 4 + Rs. 3) Rs.7 per share 14,000

Total balance 21,680

Note : Premium amount on Jagdale's shares will not be taken into account as it has been received in full by the company.

1.7.1 Re-issue of Forfeited Shares

The directors can either cancel or re-issue the forefeited shares. In most cases, they reissue such shares which may be at par, at premium or at a discount. Forfeited shares may be reissued as fully paid at a par, premium discount. In this context, it may be noted that the amount of discount allowed cannot exceed the amount that had been received on forfeited shares at the time of initial issue, and that the discount allowed on reissue of forfeited shares should be debited to the 'Forfeited Share Account'. The balance, if any, left in the Share-Forfeited Account, should be treated as capital profit and transferred to Capital Reserve Account. For example, when a company forfeits 200 shares of Rs. 10 each on which Rs. 600 had been received, it can allow a maximum discount of Rs. 600 on their reissue. Assuming that the company reissues these shares for Rs. 1,800 as fully paid, the necessary journal entry will be:

Bank A/c	Dr.	1,800	
Share Forfeiture A/c	Dr.	200	
To Share Capital A/c			2,000
(Reissue of 200 forfeited shares at Rs. 9 per share as fully paid)			

This shall leave a balance of Rs. 400 in share forfeited account which should be transferred to Capital Reserve Account by recording the following journal entry:

Share Forfeiture A/c	Dr.	400	
To Capital Reserve			400
(Profit on reissue of forfeited shares transferred)			

Another important point to be noted in this context is that the capital profit arises only in respect of the forefited share reissued, and not on all forefeited shares. Hence, when a part of the forfeited shares are reissued, the whole balance of share forfeiture Account cannot be transferred to the capital reserve. In such a situation, it is only the proportionate amount of balance that relates to the forefeited shares reissued which should be transferred to capital reserve, ensuring that the remaining balance in share forefeiture account is proportinate to the amount forefeited on shares not yet reissued.

Illustration 18

The director of Poly Plastic Limited resolved that 200 equity shares of Rs.100 each be forfeited for non-payment of the second and final call of Rs.30 per share. Out of these, 150 shares were re-issued at Rs.60 per share to Mohit.

Show the necessary journal entries .

Solution:

Books of Poly Plastic Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Share Capital A/c	Dr.		20,000	
	To Forfieted Shares A/c				14,000
	To Share Second and Final Call A/c				6,000
	(200 shares forfeited for non-payment of final call at Rs.30 per share)				
	Bank A/c	Dr.		9,000	
	Forfieted Shares A/c	Dr.		6,000	
	To Share Capital A/c				15,000
	(Reissue of 150 shares of Rs.100 each, issued as fully paid for Rs.60 each)				
	Forfieted Shares A/c	Dr.		4,500	
	To Capital Reserve				4,500
	(Profit on reissue of 150 forfeited shares transferred to capital reserve)				

Working Notes :

		(Rs.)	
Total amount forfeited on 200 shares	=	14,000	(200 shares Rs.70)
Amount forfeited on 150 shares	=	10,500	(150 shares Rs.70)
Amount forfeited on 50 shares	=	3,500	(50 shares Rs.70)
Amount of discount on reissue of 150 shares	=	6,000	(150 shares Rs.40)
Amount of profit on reissued shares transferred to capital reserve	=	4,500	(Rs. 10,500 – Rs.6,000)
Balance left in share forfeited account (equal to amount forfeited on 50 shares)	=	4,500	(Rs.14,000 – Rs.6,000) – Rs. 3,500)

Illustration 19

On January 1, 2012, the director of X Ltd. issued for public subscription 50,000 equity shares of Rs. 10 each at Rs. 12 per share payable as to Rs. 5 on application (including premium), Rs. 4 on allotment and the balance on call in May 01, 2002.

The lists were closed on February 10, 2012 by which date applications for 70,000 shares were received. Of the cash received Rs. 40,000 was returned and Rs.60,000 was applied to the amount due on allotment, the balance of which was paid on February 16, 2012.

All the shareholders paid the call due on May 01, 2012 with the exception of an allottee of 500 shares.

These shares were forfeited on September 29, 2012 and reissued us fully paid at Rs. 8 per share on November 01, 2012.

The company, as a matter of policy, does not maintain a Calls-in-Arrears Account.

Give journal entries to record these share capital transactions in the books of X. Ltd.

Solution:

Book of X. Ltd.
Journal

Date 2012	Particulars		L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
Feb.10	Bank A/c	Dr.		3,50,000	
	To Equity Share Application and Allotment A/c				3,50,000
	(Amount received on application for 70,000 shares @ Rs. 5 per share Including Premium)				
Feb.16	Equity Share Application A/c	Dr.		2,50,000	
	To Equity Share Capital A/c				1,50,000
	To Securities Premium A/c				1,00,000
	(Transfer of application money on 50,000 shares to share capital and premium accounts consequent upon allotment)				
Feb.16	Equity Share Allotment A/c	Dr.		2,00,000	
	To Equity Share Capital A/c				2,00,000
	(Amount due on allotment of 50,000 Shares @ Rs. 4 per share)				
Feb.16	Equity Share Application A/c	Dr.		1,00,000	
	To Bank A/c				1,00,000
	To Equity Share Allotment A/c				
	(Money refunded for 8,000 shares and balance transfer to share capital account)				
Feb.16	Bank A/c	Dr.		1,40,000	
	To Equity Share Allotment A/c				1,40,000
	(Money received on allotment)				
May 1	Equity Share First & Final Call A/c	Dr.		1,50,000	
	To Equity Share Capital A/c				1,50,000
	(First call money due)				

May 1	Bank A/c Dr. To Equity Share First & Final Call A/c (Money received on first call)		1,48,500	 1,48,500
Sept.29	Equity Share Capital A/c Dr. To Forfieted Shares A/c To Equity Share First & Final Call A/c (Forfieted of 500 shares for non-payment of call)		5,000	 3,500 1,500
Nov. 1	Bank A/c Dr. Forfieted Shares A/c Dr. To Equity Share Capital A/c (Reissue of 500 forfeited shares as fully paid at Rs. 4 per share)		4,000 1,000	 5,000
Nov. 1	Forefieted Shares A/c Dr. To Capital Reserve (Balance on Forfeited Shares Accounts transferred to capital reserve)		2,500	 2,500

Illustration 20

A limited company forfeited 1,000 equity shares of Rs. 10 each, issued at a discount of 10 per cent, for non-payment of first call of Rs. 2 and second call of Rs. 3 per share.

These shares were reissued to A upon payment of Rs. 7,000 credited as fully paid.

The company maintains calls-in-arrears account.

Record journal entries in the books of the company relating to forfeiture of 1,000 shares and their reissue.

Solution:

Books of A Limited Company
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Equity Share Capital A/c Dr. To Forfeited Shares A/c To Discount on the Issue of Share A/c To Calls-in-Arrears A/c (Forfeiture of 1,000 shares for non-payment of call and discount on issue written back)		10,000	 4,000 1,000 5,000

	Bank A/c Dr. Discount on Issue of Shares a/c Dr. Forfeited Shares A/c Dr. To Equity Share Capital A/c (Reissue of 1,000 forfeited shares as fully paid at Rs. 7 per share, discount on issue written back and the balance debited to share Forfeiture account)		7,000 1,000 2,000	 10,000
	Forfeited Shares A/c Dr. To Capital Reserve (Closure of Forfeiture A/c)		2,000	 2,000

Illustration 21

O Limited issued a prospectus offering 2,00,000 Equity Shares of Rs. 10 each, at a premium of Rs. 2 per share, payable as follows:

On Application	Rs. 2.50 per share
On Allotment	Rs. 4.50 per share (including premium)
On First Call (three months from allotment)	Rs. 2.50 per share
On Second Call (three months after call)	Rs. 2.50 per share

Subscriptions were received for 3,17,000 shares on April 23, 2012 and the allotment made on April 30, was as under :

		Shares Allotted
(i)	Allotment in full (two applicants paid in full on allotment in respect of 4,000 shares each)	38,000
(ii)	Allotment of two shares for every three shares applied for	1,60,000
(iii)	Allotment of one share for every four shares applied for	2,000

Cash amounting to Rs. 77,500 (being application money received with applications on 31,000 shares upon which no allotments were made) was returned to applicants on May 6, 2012.

The amounts called from the allottees were received on the due dates with the exception of the final call on 100 shares. These shares were forfeited on November 15, 2012 and reissued to A on November 16 for payment of Rs. 9 per share.

Record journal entries other than those relating to cash, in the books of O Limited, and also show how the transactions would appear in the balance sheet, assuming that the Company paid interest due from it on October 31, 2012.

Solution:

Book of O Limited
Journal

Date 2012	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
April 30	Share application A/c	Dr.		7,15,000	
	To Equity Share Capital A/c				5,00,000
	To Equity Share Allotment A/c				1,75,000
	To Cash-in-Advance A/c				40,000
	(Transfer of Application Money to share capital after allotment and excess appliation money on 86,000 shares due to pro-rata allotment credited to share allotment)				
April 30	Equity Share Allotment A/c	Dr.		9,00,000	
	To Equity Share Capital A/c				5,00,000
	To Securities Premium A/c				4,00,000
	(Allotment amount due on 2,00,000 shares @ Rs. 4.50 per share including premium)				
July 31	Equity Share First Call A/c	Dr.		5,00,000	
	To Equity Share Capital A/c				5,00,000
	(First call money due on 2,00,000 shares @ Rs. 2.50 per share)				
July 31	Calls-in-Advance A/c	Dr.		20,000	
	To Equity Share First Call A/c				20,000
	(Call in advance on 8,000 shares adjusted against first call money due)				
Oct. 31	Equity Share Second and Final Call A/c	Dr.		5,00,000	
	To Equity Share Capital A/c				5,00,000
	(Second call money due on 2,00,000 shares @ Rs. 2.50 per share)				
Oct. 31	Calls in Advance A/c	Dr.		20,000	
	To Equity Share Second and Final Call A/c				20,000
	(Calls in advance on 8,000 shares adjusted against second call money due)				

Nov. 15	Equity Share Capital A/c Dr. To Equity share forfeiture A/c To Equity share Second and Final Call A/c (Forfeiture of 100 shares for the non-payment of call money)		1,000	 750 250
Nov. 16	Equity Share forfeiture A/c Dr. To Equity Share Capital A/c (Amount due from A for the reissue of 100 shares as fully paid at Rs. 9 per share)		100	 100
Nov. 16	Equity Share forfeiture A/c Dr. To Capital Reserve (The closure of share Forfeiture account)		650	 650

Cash Book

Dr. *Cr.*

Receipts	*Amount (Rs.)*	*Payments*	*Amount (Rs.)*
Equity Share Aplication	7,92,500	Equity Shares Application	77,500
Equity Share Allotment	6,85,000	Balance c/d	23,60,650
Equity Share First Call	4,80,000		
Equity Share Second and First Call	4,79,750		
Equity Share Capital	900		
	24,38,150		**24,38,150**

Working Notes :

1. Excess Application Money

Categories of Allotment	*No. of Shares Applied*	*No. of Share Alloted*	*Ratio of Allotment*
i	38,000	38,000	100%
ii	2,40,000	1,60,000	2/3
iii	8,000	2,000	1/4
	2,86,000	**2,00,000**	

Therefore, refund of application money = 3,17,000 – 2,86,000 Rs. 2.50

= Rs. 77,500

Application money received = Rs. 7,15,000
(2,86,000 shares @ Rs. 2.50)

Application money due : (2,00,000 shares @ Rs. 2.50)	=	Rs. 5,00,000
Excess application money		Rs. 2,15,000

2. Amount of Calls-in-Advance

   As two allotees, each holding 4,000 shares, paid the full amount on allotment, amount of calls-in-advance is thus :
   8,000 shares (Rs. 2.50 + Rs. 2.50) = Rs. 40,000

Box 4

Buy-Back of Shares : When a company purchase its own shares, it is called 'Buy-Back of Shares'. Section 77A of the Companies Act, 1956 provides that the company can buy their own shares from either of the following sources :

(a) Existing equity shareholders on a proportionate basis
(b) Open Market
(c) Odd lot shareholders
(d) Employees of the company

The company can buy back its own shares either from the free reserves, securities premium or from the proceeds of any shares or other specified securities. In case shares are bought back out of free reserves, the company must transfer a sum equal to the nominal value of shares bought back to 'Capital Redemption Reserve Account'.

Section 77A of The Companies Act 1956 has laid down the following procedures for buy-back of shares :

(a) The Articles of the Association must authorise the company for the buy-back of shares.
(b) A special resolution must be passed in the companies' Annual General Body meeting.
(c) The amount of buy-back of shares should not exceed 25% of the paid-up capital and free reserves.
(d) The debt-equity ratio should not be more than a ratio of 2:1 after the buy-back.
(e) All the shares of buy-back should be fully paid-up.
(f) The buy-back of the shares should be completed within 12 months from the date of passing the special resolution.
(g) The company should file a solvency declaration with the Registrar and SEBI which must be signed by at least two directors of the company.

Illustration 22

Garima Limited issued a prospectus inviting applications for 3,000 shares of Rs. 100 each at a premium of Rs.20 payable as follows:

On Application	Rs.20 per share
On Allotment	Rs.50 per share (Including premium)
On First call	Rs.20 per share
On Second call	Rs.30 per share

Applications were received for 4,000 shares and allotments made on pro-rata basis to the applicants of 3,600 shares, the remaining applications being rejected, money received on application was adjusted on account of sums due on allotment.

Renuka whom 360 shares were allotted failed to pay allotment money and calls money, and her shares were forfeited.

Kanika, the applicant of 200 shares failed to pay the two calls, her shares were also forfeited. All these shares were sold to Naman as fully paid for Rs.80 per share. Show the journal entries in the books of the company.

Solution:

Books of Garima Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c	Dr.		80,000	
	To Share Application A/c				80,000
	(Application money received on 4,000 shares @ Rs. 20 per share)				
	Share Application A/c	Dr.		80,000	
	To Share Capital A/c				60,000
	To Share Allotment A/c				12,000
	To Bank A/c				8,000
	(Transfer of application money on 3,000 shares to Share Capital Account, on 600 shares to Allotment Account, and on of 400 shares refunded)				
	Share Allotment A/c	Dr.		1,50,000	
	To Share Capital A/c				90,000
	To Securities Premium A/c				60,000
	(Money due on allotment @ Rs. 50 per share on 3,000 shares including Rs.20 on account of share premium)				
	Bank A/c	Dr.		1,21,440	
	To Share Allotment A/c				1,21,440
	(Money received on share allotment)				
	Share First Call A/c	Dr.		60,000	
	To Share Capital A/c				60,000
	(Money due on call on 3,000 shares @ Rs.20 per share)				

	Bank A/c Dr. To Share First Call A/c (First call money received on 2440 shares)		48,800	 48,800
	Share Second and Final Call A/c Dr. To Share Capital A/c (Money due on call on 3,000 shares @ Rs.30 per share)		90,000	 90,000
	Bank A/c Dr. To Share Second and Final Call A/c (Second and Final Call money received on 2,440 shares)		73,200	 73,200
	Share Capital A/c Dr. Securities Premium A/c *(See note 2)* To Share Allotment A/c To Share First Call A/c To Share Second and Final A/c To Share Forfeiture A/c (Forfeiture of 560 shares)		56,000 7,200	 16,560 11,200 16,800 18,640
	Bank A/c Dr. Forfeited Shares A/c Dr. To Share Capital A/c (Reissue of 560 forfeited shares)		44,800 11,200	 56,000
	Forfeited Shares A/c Dr. To Capital Reserve (Profit on forfeiture and reissue of 560 forfeited shares transferred)		7,440	 7,440

Working Notes :

Amount received on allotment has been calculated as follows:

		(Rs.)
	Total money due on allotment (including premium)	1,50,000
Less :	Application money received on 600 shares adjusted towards allotment money	12,000
	Net amount due on allotment on 3000 shares	1,38,000
Less :	Allotment money due on 360 shares alloted to Renuka, not received $\frac{360}{3000} \times 1,38,000$	16,560
	Net amount received on 2,640 shares	1,21,440

Since the allotment money which includes securities premium of Rs. 20 per share has not been received. on 360 shares held by Renuka (now forfeited) has been debited to share premium account as per rules.

Amount forefeited has been worked out as follows :-

Application money received from Renuka: $\left(360 \times \frac{3,600}{3,000}\right)$ = 432 Rs. 20 =	Rs. 8,640
Application and Allotment money received from Kanika on 200 shares	Rs. 10,000
Total amount received on forefeited shares	Rs. 18,640

Do it Yourself

Excell Company Limited made an issue of 1,00,000 Equity Shares of Rs.10 each, payable as follows :

On Application	Rs.2.50 per share
On Allotment	Rs.2.50 per share
On First and Final Call	Rs.5.00 per share

X, the holder of 400 shares did not pay the call money and his shares were forfeited. Two hundred of the forfeited shares were reissued as fully paid at Rs.8 per share. Draft necessary journal entries and prepare Share Capital and Share Forfeited' accounts in the books of the company.

Test your Understanding – III

(a) If a Share of Rs. 10 on which Rs. 8 is called-up and Rs. 6 is paid is forfeited. State with what amount the Share Capital account will be debited.

(b) If a Share of Rs. 10 on which Rs. 6 has been paid is forfeited, at what minimum price it can be reissued.

(c) Allhuwalia Ltd. issued 1,000 equity shares of Rs. 100 each as fully paid-up in consideration of the purchase of plant and machinery worth Rs. 1,00,000. What entry will be recorded in company's journal.

Illustration 23

Sunrise Company Limited offered for public subscription 10,000 shares of Rs.10 each at Rs. 11 per share. Money was payable as follows:

Rs. 3 on application

Rs. 4 on allotment (including premium)

Rs. 4 on first and final call.

Applications were received for 12,000 shares and the directors made *pro-rata* allotment.

Mr. Ahmad, an applicant for 120 shares, could not pay the allotment and call money, and Mr. Basu, a holder of 200 shares, failed to pay the call. All these shares were forfeited.

Out of the forfeited shares, 150 shares (the whole of Mr. Ahmad's shares being included) were issued at Rs. 8 per share. Record journal entries for the above transactions and prepare the share forfeited account.

Solution:

Books of Sunrise Company Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr.		36,000	
	To Share Application A/c			36,000
	(Application money received on 12,000 shares @ Rs. 3 per share)			
	Share Application A/c Dr.		36,000	
	To Share Capital A/c			30,000
	To Share Allotment A/c			6,000
	(Transfer of application money to share capital account on 10,000 shares and the balance to allotment account)			
	Share Allotment A/c Dr.		40,000	
	To Share Capital A/c			30,000
	To Securities Premium A/c			10,000
	(Money due on allotment @ Rs. 4 per share on 10,000 shares including Rs. 1 on account of share premium)			
	Bank A/c Dr.		33,660	
	To Share Allotment A/c			33,660
	(Money received on share allotment: *See note 1)*			
	Share first and Final Call A/c Dr.		40,000	
	Share Capital A/c			40,000
	(Money due on call on 10,000 shares @ Rs. 4 per share)			
	Bank A/c Dr.		38,800	
	To Share first and Final Call A/c			38,800
	(Call money received on 9,700 shares)			

	Share Capital A/c Dr. Securities Premium A/c To Share Allotment A/c To Share first and Final Call A/c To Share Forfeiture A/c (Forfeiture of 300 shares)		3,000 100	 340 1,200 1,560
	Bank A/c Dr. Forfeited Shares A/c Dr. To Share Capital A/c (Reissue of 150 forfeited shares)		1,200 300	 1,500
	Forfeited Shares A/c Dr. To Capital Reserve A/c (Profit on forfeiture and reissue of 150 forfeited shares transferred)		360	 360

Share Forfeiture Account

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
	Share Capital		300		Sundries		1,560
	Capital Reserve		360				
	Balance c/d		900				
			1,560				1,560

Working Notes :

1. Amount received on allotment has been calculated as follows:

		(Rs.)
	Total money due on 10,000 shares @ Rs. 4 per share	40,000
Less:	Application Money Received on 2,000 shares adjusted against allotment money and net amount due on allotment	(6,000)
		34,000
Less:	Amount due from an applicant for 120 shares who was allotted only 100 shares	
	$\frac{100}{10,000} \times 34,000$	(340)
	Amount received on allotment	33,660

2. Securities Premium Account has been debited only with Rs. 100 relating to 100 shares allotted Mr. Ahmad's shares from whom the allotment money (including premium) has not been received.

3. Shares Forfeiture Account represents the money received on forfeited shares excluding share premium. This has been worked out as follows:

	(Rs.)
Mr. Ahmad has paid application money @ Rs. 3 per share on 120 shares	360
Mr. Basu has paid @ Rs. 6 per share on Two hundred shares in (application and allotment money excluding premium)	1,200
Total amount received	1,560

	(Rs.)
4. Amount received from Mr. Ahmad on 100 shares forfeited which have been reissued Amount received from *Mr. Basu* on 50	360
shares forfeited which have been reissued $\left(\frac{50}{200} \times \text{Rs. } 1{,}200\right)$	300
Total amount received on 150shares which have been forfeited and later reissued	660
Less: Discount on reissue of forfeited shares (150 $\times$ Rs. 2)	300
Amount of Capital Profit transferred to capital reserve	360

Do it Yourself

Journalise the following :

(a) The directors of a company forfeited 200 equity shares of Rs.10 each on which Rs. 800 had been paid. The Shares were reissued upon payment of Rs.1,500.

(b) A holds 100 shares of Rs.10 each on which he has paid Re.1 per share on application. B holds 200 Shares of Rs.10 each on which he has paid Re.1 on application Rs.2 on allotment. C holds 300 shares of Rs.10 each who has paid Re.1 on applications, Rs.2 on allotment and Rs.3 on first call. They all failed to pay their arrears and second call of Rs.4 per share as well. All the shares of A, B and C were forfeited and subsequently reissued at Rs.11 per share as fully Paid-up.

Terms Introduced in the Chapter

1. Joint Stock Company
2. Share Capital
3. Authorised Capital
4. Issued Capital
5. Unissued Capital
6. Subscribed Capital
7. Subscribed and fully paid-up
8. Subscribed but not fully paid up
9. Paid-up Capital
10. Reserve Capital
11. Shares
12. Preference Shares
13. Non-redeemable Preference Shares
14. Equity Shares
15. Issue of Shares for Consideration Other than Cash
16. Discount on Shares
17. Premium on Shares
18. Application Money
19. Minimum Subscription
20. Calls-on Shares
21. Calls-in-Arrears
22. Calls-in-Advance
23. Over subscription
24. Under subscription
25. Forfeiture of Shares
26. Reissue of forfeited shares
27. Buy Back of Shares

Summary

Company: An organisation consisting of individuals called 'shareholders' by virtue of their holding the shares of a company, who can act as legal person as regards its business through board of directors.

Share: Fractional part of the capital, and forms the basis of ownership in a company; shares are generally of two types, viz. equity shares and preference shares, according to the provisions of The Companies Act, 1956. Preference shares again are of different types based on varying shades of rights attached to them.

Share Capital of a company is collected by issuing shares to either a select group of persons through the route of private placements and/or offered to the public for subscription. Thus, the issue of shares is basic to the capital of a company. Shares are issued either for cash or for consideration other than cash, the former being more common. Shares are said to be issued for consideration other than cash when a company purchases business, or some asset/assets, and the vendors have agreed to receive payment in the form of fully paid shares of a company.

Stages of Share Issue: The issue of shares for cash is required to be made in strict conformity with the procedure laid down by law for the same. When shares are issued for cash, the amount on them can be collected at one or more of the following stages:

(i) Application for shares

(ii) Allotment of shares

(iii) Call/Calls on shares.

Calls-in-Arrears: Sometimes, the full amount called on allotment and/or call (calls) is not received from the allottees/shareholders. The amount not so received are cumulatively called 'Unpaid calls' or 'Calls-in-Arrears'. However, it is not mandatory for a company to maintain a separate Calls-in-Arrears Account. There are also instances where some shareholders consider it descreet to pay a part or whole of the amount not yet called-up on the shares allotted to them. Any amount paid by a shareholder in the excess of the amount due from him on allotment/call (calls) is known as 'Calls-in-Advance' for which a separate account is maintained. A company has the power to charge interest on calls-in-arrears and is under an obligation to pay interest on calls-in-advance if it accepts them in accordance with the provisions of Articles of Association.

Over Subscription: It is possible for the shares of some companies to be over subscribed which means that applications for more shares are received than the number offered for subscription through the prospectus. Under such a condition, the alternatives available to the directors are as follows :

(i) They can accept some applications in full and totally reject the others,

(ii) A pro-rata distribution can be made by them,

(iii) A combination of the above two alternatives can be adopted by them.

If the amount of minimum subscription is not received to the extent of 90%, the issue devolves. In case the applications received are less than the number of shares offered to the public, the issue is termed as 'under subscribed'.

Issue of Shares at Premium: Irrespective of the fact that shares have been issued for consideration other than cash, they can be issued either at par or at premium. The issue of shares at par implies that the shares have been issued for an amount exactly equal to their face or nominal value. In case shares are issued at a premium, i.e. at an amount more than the nominal or par value of shares, the amount of premium is credited to a separate account called 'Securities Premium Account', the use of which is strictly regulated by law.

Issue of Shares at Discount: Shares can as well be issued at a discount, i.e. on an amount less than the nominal or par value of shares provided the company fully complies with the provisions laid down by law with regard to the same. Apart from such compliance, shares of a company cannot ordinarily be issued at a discount. When shares are issued at a discount, the amount of discount is debited to 'Discount on Issue of Share Account', which is in the nature of capital loss for the company.

Forfeiture of Shares: Sometimes, shareholders fail to pay one or more instalments on shares allotted to them. In such a case, the company has the authority to forfeit shares of the defaulters. This is called 'Forfeiture of Shares'. Forfeiture means the cancellation of allotment due to breach of contract and to treat the amount already received on such shares as forfeited to the company. The precise accounting treatment of share forfeiture depends upon the conditions on which the shares have been issued — at par, premium or discount. Generally speaking, accounting treatment on forfeiture is to reverse the entries passed till the stage of forfeiture, the amount already received on the shares being credited to Forfeited Shares Account.

Reissue of Shares: The management of a company is vested with the power to reissue the shares once forfeited by it, subject of course, to the terms and conditions in the articles of association relating to the same. The shares can be reissued even at a discount provided the amount of discount allowed does not exceed the credit balance of forfeited shares' account relating to shares being reissued. Therefore, discount allowed on the reissue of forfeited shares is debited to forfeited shares' account.

Once all the forfeited shares have been reissued, any credit balance on forfeited shares' account is transferred to Capital Reserve representing profit on forfeiture of shares. In the event of all forfeited share not being reissued, the credit amount on forfeited shares' account relating to shares yet to be reissued is carried forward and the remaining balance on the account only is credited to capital reserve account.

Question for Practice

Short Answer Questions

1. What is public company?
2. What is private limited company.
3. When can shares be Forfeited?
4. What is meant by Calls-in-Arrears?
5. What do you mean by a listed company?
6. What are the uses of securities premium?
7. What is meant by Calls-in-Advance?
8. Write a brief note on 'Minimum Subscription".

Long Answer Questions

1. What is meant by the word 'Company'? Describe its characteristics.
2. Explain in brief the main categories in which the share capital of a company is divided.
3. What do you mean by the term 'share'? Discuss the type of shares, which can be issued under the Companies Act, 1956 as amended to date.
4. Discuss the process for the allotment of shares of a company in case of over subscription.
5. What is a 'Preference Share'? Describe the different types of preference shares.
6. Describe the provisions of law relating to 'Calls-in-Arrears' and 'Calls-in-Advance'.
7. Explain the terms 'Over subscription' and 'Under subscription'. How are they dealt with in accounting records?
8. Describe the purposes for which a company can use the amount of Securities Premium.
9. State clearly the conditions under which a company can issue shares at a discount.
10. Explain the term 'Forfeiture of Shares' and give the accounting treatment on forfeiture.

Numerical Questions

1. Anish Limited issued 30,000 equity shares of Rs.100 each payable at Rs.30 on application, Rs.50 on allotment and Rs.20 on Ist and final call. All money was duly received.

   Record these transactions in the journal of the company.

2. The Adersh Control Device Ltd. was registered with the authorised capital of Rs.3,00,000 divided into 30,000 shares of Rs.10 each, which were offered to the public. Amount payable as Rs.3 per share on application, Rs.4 per share on allotment and Rs.3 per share on first and final call. These share were fully subscribed and all money was dully received. Prepare journal and Cash Book.

3. Software Solution India Ltd invited applications for 20,000 equity share of Rs.100 each, payable Rs.40 on application, Rs.30 on allotment and Rs.30 on call. The company received applications for 32,000 shares. Application for 2,000 shares were rejected and money returned to Applicants. Applications for 10,000 shares were accepted in full and applicants for 20,000 shares allotted half of the number of shares applied and excess application money adjusted into allotment. All money received due on allotment and call.

   Prepare journal and cash book.

4. Rupak Ltd. issued 10,000 shares of Rs.100 each payable Rs.20 per share on application, Rs.30 per share on allotment and balance in two calls of Rs.25 per share. The application and allotment money were duly received. On first call, all members paid their dues except one member holding 200 shares, while another members holding 500 shares paid for the balance due in full. Final call was not made.

   Give journal entries and prepare cash book.

5. Mohit Glass Ltd. issued 20,000 shares of Rs.100 each at Rs.110 per share, payable Rs.30 on application, Rs.40 on allotment (including Premium), Rs.20 on first call and Rs.20 on final call. The applications were received for 24,000 shares and allotted 20,000 shares and reject 4,000 shares and amount returned thereon. The money was duly received.

   Give journal entries.

6. A limited company offered for subscription of 1,00,000 equity shares of Rs.10 each at a premium of Rs.2 per share. 2,00,000 10% Preference shares of Rs.10 each at par.

   The amount on share was payable as under :

	Equity Shares	*Preference Shares*
On Application	Rs.3 per share	Rs.3 per share
On Allotment	Rs.5 per share (including premium)	Rs.4 per share
On First Call	Rs.4 per share	Rs.3 per share

   All the shares were fully subscribed, called-up and paid.

   Record these transactions in the journal and cash book of the company:

7. Eastern Company Limited, having an authorised capital of Rs.10,00,000 in shares of Rs.10 each, issued 50,000 shares at a premium of Rs.3 per share payable as follows :

On Application	Rs.3 per share
On Allotment (including premium)	Rs.5 per share
On first call (due three months after allotment)	Rs.3 per share

and the balance as and when required.

Applications were received for 60,000 shares and the directors allotted the shares as follows :

(a) Applicants for 40,000 shares received in full.

(b) Applicants for 15,000 shares received an allotment of 8,000 shares.

(c) Applicants for 500 shares received 200 shares on allotment, excess money being returned.

All amounts due on allotment were received.

The first call was duly made and the money was received with the exception of the call due on 100 shares.

Give journal and cash book entries to record these transactions of the company. Also prepare the Balance Sheet of the company.

8. Sumit Machine Ltd. issued 50,000 shares of Rs.100 each at discount of 5%. The shares were payable Rs.25 on application, Rs. 40 on allotment and Rs.30 on first and final call. The issue were fully subscribed and money were duly received except the final call on 400 shares. The discount was adjusted on allotment.

Give journal entries and prepare the balance sheet.

9. Kumar Ltd. purchases assets of Rs.6,30,000 from Bhanu Oil Ltd. Kumar Ltd. issued equity share of Rs.100 each fully paid in consideration. What journal entries will be made, if the shares are issued, (a) at par, (b) at discount of 10% and (c) at premium of 20%.

10. Bansal Heavy machine Ltd. purchased machine worth Rs.3,20,000 from Handa Trader. Payment was made as Rs.50,000 cash and remaining amount by issue of equity shares of the face value of Rs. 100 each fully paid at an issue price of Rs.90 each.

Give journal entries to record the above transaction.

11. Naman Ltd. issued 20,000 shares of Rs.100 each, payable Rs.25 on application, Rs.30 on allotment , Rs.25 on first call and The balance on final call. All money duly received except Anubha, who holding 200 shares did not pay allotment

and calls money and Kumkum, who holding 100 shares did not pay both the calls. The directors forfeited the shares of Anubha and kumkum.

Give journal entries.

12. Kishna Ltd. issued 15,000 shares of Rs.100 each at a premium of Rs.10 per share, payable as follows:

On application	Rs.30
On allotment	Rs.50 [including premium]
On first and final call	Rs.30

All the shares subscribed and the company received all the money due, With the exception of the allotment and call money on 150 shares. These shares were forfeited and reissued to Neha as fully paid share of Rs.12 each.

Give journal entries in the books of the company.

13. Arushi Computers Ltd. issued 10,000 equity shares of Rs.100 each at 10% discount. The net amount payable as follows:

On application	Rs.20
On allotment	Rs.30 (Rs.40 – discount Rs.10)
On first call	Rs.30
On final call	Rs.10

A shareholder holding 200 shares did not pay final call. His shares Were forfeited. Out of these 150 shares were reissued to Ms.Sonia at Rs.75 per shares.

Give journal entries in the books of the company.

14. Raunak Cotton Ltd. issued a prospectus inviting applications for 6,000 equity shares of Rs.100 each at a premium of Rs.20 per shares, payable as follows:

On application	Rs.20
On allotment	Rs.50 [including premium]
On first call	Rs.30
On final call	Rs.20

Application were received for 10,000 shares and allotment was made Pro-rata to the applicants of 8,000 shares, the remaining applications Being refused. Money received in excess on the application was adjusted toward the amount due on allotment.

Rohit, to whom 300 shares were allotted failed to pay allotment and calls money, his shares were forfeited. Itika, who applied for 600 shares, failed to pay the two calls and her share were also forfeited. All these shares were sold to Kartika as fully paid for Rs.80 per shares.

Give journal entries in the books of the company.

15. Himalaya Company Limited issued for public subscription of 1,20,000 equity shares of Rs.10 each at a premium of Rs.2 per share payable as under :

With Application	Rs. 3 per share
On allotment (including premium)	Rs. 5 per share
On First call	Rs. 2 per share
On Second and Final call	Rs. 2 per share

Applications were received for 1,60,000 shares. Allotment was made on pro-rata basis. Excess money on application was adjusted against the amount due on allotment.

Rohan, whom 4,800 shares were allotted, failed to pay for the two calls. These shares were subsequently forfeited after the second call was made. All the shares forfeited were reissued to Teena as fully paid at Rs. 7 per share.

Record journal entries in the books of the company to record these transactions relating to share capital. Also show the company's balance sheet.

16. Prince Limited issued a prospectus inviting applications for 2,00,000 equity shares of Rs.10 each at a premium of Rs.3 per share payable as follows :

With Application	Rs.2
On Allotment (including premium)	Rs.5
On First Call	Rs.3
On Second Call	Rs.3

Applications were received for 30,000 shares and allotment was made on pro-rata basis. Money overpaid on applications was adjusted to the amount due on allotment.

Mr. 'Mohit' whom 400 shares were allotted, failed to pay the allotment money and the first call, and her shares were forfeited after the first call. Mr. 'Joly', whom 600 shares were allotted, failed to pay for the two calls and hence, his shares were forfeited.

Of the shares forfeited, 800 shares were reissued to Supriya as fully paid for Rs.9 per share, the whole of Mr. Mohit's shares being included.

Record journal entries in the books of the Company and prepare the Balance Sheet.

17. Life Machine Tools Limited, issued 50,000 equity shares of Rs.10 each at Rs.12 per share, payable at to Rs.5 on application (including premium), Rs.4 on allotment and the balance on the first and final call.

    Applications for 70,000 shares had been received. Of the cash received, Rs.40,000 was returned and Rs.60,000 was applied to the amount due on allotment, the balance of which was paid. All shareholders paid the call due, with the exception of one share holder of 500 shares. These shares were forfeited and reissued as fully paid at Rs.8 per share. Journalise the transactions.

18. The Orient Company Limited offered for public subscription 20,000 equity shares of Rs.10 each at a premium of 10% payable at Rs.2 on application; Rs.4 on allotment including premium; Rs.3 on First Call and Rs.2 on Second and Final call. Applications for 26,000 shares were received. Applications for 4,000 shares were rejected. Pro-rata allotment was made to the remaining applicants. Both the calls were made and all the money were received except the final call on 500 shares which were forfeited. 300 of the forfeited shares were later on issued as fully paid at Rs.9 per share. Give journal entries and prepare the balance sheet.

19. Alfa Limited invited applications for 4,00,000 of its equity shares of Rs.10 each on the following terms :

Payable on application	Rs.5 per share
Payable on allotment	Rs.3 per share
Payable on first and final call	Rs.2 per share

    Applications for 5,00,000 shares were received. It was decided :

    (a) to refuse allotment to the applicants for 20,000 shares;

    (b) to allot in full to applicants for 80,000 shares;

    (c) to allot the balance of the available shares' pro-rata among the other applicants; and

    (d) to utilise excess application money in part as payment of allotment money.

    One applicant, whom shares had been allotted on pro-rata basis, did not pay the amount due on allotment and on the call, and his 400 shares were forfeited. The shares were reissued @ Rs.9 per share. Show the journal and prepare Cash book to record the above.

20. Ashoka Limited Company which had issued equity shares of Rs.20 each at a discount of Rs. 4 per share, forfeited 1,000 shares for non-payment of final call of Rs.4 per share. 400 of the forfeited shares are reissued at Rs.14 per share out of the remaining shares of 200 shares reissued at Rs.20 per share. Give journal entries for the forfeiture and reissue of shares and show the amount transferred to capital reserve and the balance in Share Forfeiture Account.

21. Amit holds 100 shares of Rs.10 each on which he has paid Re.1 per share as application money. Bimal holds 200 shares of Rs.10 each on which he has paid Re.1 and Rs.2 per share as application and allotment money, respectively. Chetan holds 300 shares of Rs.10 each and has paid Re.1 on application, Rs.2

on allotment and Rs.3 for the first call. They all fail to pay their arrears and the second call of Rs.2 per share and the directors, therefore, forfeited their shares. The shares are reissued subsequently for Rs.11 per share as fully paid. Journalise the transactions.

22. Ajanta Company Limited having a normal capital of Rs.3,00,000, divided into shares of Rs.10 each offered for public subscription of 20,000 shares payable at Rs.2 on application; Rs.3 on allotment and the balance in two calls of Rs.2.50 each. Applications were received by the company for 24,000 shares. Applications for 20,000 shares were accepted in full and the shares allotted. Applications for the remaining shares were rejected and the applications money were refunded.

    All moneys due were received with the exception of the final call on 600 shares which were forfeited after legal formalities were fulfilled. 400 shares of the forfeited shares were reissued at Rs.9 per share.

    Record necessary journal entries and prepare the balance Sheet showing the amount transferred to capital reserve and the balance in Share forfeiture account.

23. Journalise the following transaction in the books Bhushan Oil Ltd.:
    (a) 200 shares of Rs.100 each issued at a discount of Rs.10 were forfeited for the non-payment of allotment money of Rs.50 per share. The first and final call of Rs.20 per share on these share were not made. The forfeited share were reissued at Rs.70 per share as fully paid-up.
    (b) 150 shares of Rs.10 each issued at a premium of Rs.4 per share payable with allotment were forfeited for non-payment of allotment money of Rs.8 per share including premium. The first and final call of Rs.4 per share were not made. The forfeited shares were reissued at Rs.15 per share fully paid-up.
    (c) 400 shares of Rs.50 each issued at par were forfeited for non-payment of final call of Rs.10 per share. These share were reissued at Rs.45 per share fully paid-up.

24. Amisha Ltd. invited applications for 40,000 shares of Rs.100 each at a premium of Rs.20 per share payable; on application Rs.40 ; on allotment Rs.40 (Including premium): on first call Rs.25 and Second and final call Rs.15.

    Applications were received for 50,000 shares and allotment was made on pro-rata basis. Excess money on application was adjusted against due on allotment.

    Rohit to whom 600 shares were allotted failed to pay the allotment money and his shares were forfeited after allotment. Ashmita, who applied for 1,000 shares failed to pay the two calls and her shares were forfeited after the second call. Of the shares forfeited, 1,200 shares were sold to Kapil for Rs.85 per share as fully paid, the whole of Rohit's shares being included.

    Record necessary journal entries.

Answers to Test your Understanding

Test your Understanding – I

(a) False, (b) True, (c) False, (d) True, (e) True, (f) True, (g) True, (h) False, (i) True, (j) False, (k) True, (l) False, (m) True

Test your Understanding – II

(a) (ii), (b) (iii), (c) (i), (d) (ii), (e) (i), (f) (iii), (g) (iii)

Test your Understanding – III

(a) Rs. 8, (b) Rs. 4,

(c) Vendor	Dr.	1,00,000	
To Share Capital A/c			1,00,000

Issue and Redemption of Debentures

2

Learning Objectives

After studying this chapter you will be able to :

- *state the meaning of debenture capital and explain the difference between debentures and shares;*
- *describe various types of debentures;*
- *record the journal entries for the issue of debentures at par, at a discount and at premium;*
- *explain the concept of debentures issued for consideration other than cash and the accounting thereof;*
- *explain the concept of issue of debentures as a collateral security and the accounting thereof;*
- *record the journal entries for issue of debentures with various terms of issue, terms of redemption;*
- *show the items relating to issue of debentures in company's balance sheet;*
- *describe the methods of writing-off discount/loss on issue of debentures;*
- *explain the methods of redemption of debentures and the accounting thereof; and*
- *explain the concept of sinking fund, its use for redemption of debentures and the accounting thereof;*

A company raises its capital by means of issue of shares. But the funds raised by the issue of shares are seldom adequate to meet their long-term financial needs of a company. Hence, most companies turn to raising long-term funds also through debentures which are issued either through the route of private placement or by offering the same to the public. The finances raised through debentures are also known as long-term debt. This chapter deals with the accounting treatment of issue and redemption of debentures and other related aspects.

SECTION I

2.1 Meaning of Debentures

Debenture: The word 'debenture' has been derived from a Latin word 'debere' which means to borrow. Debenture is a written instrument acknowledging a debt under the common seal of the company. It contains a contract for repayment of principal after a specified period or at intervals or at the option of the company and for payment of interest at a fixed rate payable usually either half-yearly or yearly on fixed dates. According, to section 2(12) of The Companies Act,1956 'Debenture' includes Debenture Inventory, Bonds and any other securities of a company whether constituting a charge on the assets of the company or not.

Bond: Bond is also an instrument of acknowledgement of debt. Traditionally, the Government issued bonds, but these days' bonds are also being issued by semi-government and non-governmental organisations. The terms 'debentures' and 'Bonds' are now being used inter-changeably.

2.2 Distinction between Shares and Debentures

Ownership: A 'share' represent ownership of the company whereas a debenture is only acknowledgement of. A share is a part of the owned capital whereas a debenture is a part of borrowed capital.

Return: The return on shares is known as dividend while the return on debentures is called interest. The rate of return on shares may vary from year to year depending upon the profits of the company but the rate of interest on debentures is prefixed. The payment of dividend is an appropriation of profits, whereas the payment of interest is a charge on profits and is to be paid even if there is no profit.

Repayment: Normally, the amount of shares is not returned during the life of the company, whereas, generally, the debentures are issued for a specified period and repayable on the expiry of that period.

Voting Rights: Shareholders enjoy voting rights whereas debentureholders do not normally enjoy any voting right.

Rate of Discount on issue: Both shares and debentures can be issued at a discount. However, shares can be issued at discount in accordance with the provisions of Section 79 of The Companies Act, 1956 which stipulates that the rate of discount must not exceed 10% of the face value while debentures can be issued at any rate of discount.

Security : Shares are not secured by any charge whereas the debentures are generally secured and carry a fixed or floating charge over the assets of the company.

Convertibility: Shares cannot be converted into debentures whereas debentures can be converted into shares if the terms of issue so provide, and in that case these are known as convertible debentures.

2.3 Types of Debentures

A company may issue different kinds of debentures which can be classified as under:

2.3.1 From the Point of view of Security

(a) *Secured Debentures*: Secured debentures refer to those debentures where a charge is created on the assets of the company for the purpose of payment in case of default. The charge may be fixed or floating. A fixed charge is created on a specific asset whereas a floating charge is on the general assets of the company. The fixed charge is created against those assets which are held by a company for use in operations not meant for sale whereas floating charge involves all assets excluding those assigned to the secured creditors.

(b) *Unsecured Debentures*: Unsecured debentures do not have a specific a charge on the assets of the company. However, a floating charge may be created on these debentures by default. Normally, these kinds of debentures are not issued.

2.3.2 From the Point of view of Tenure

(a) *Redeemable Debentures:* Redeemable debentures are those which are payable on the expiry of the specific period either in lump sum or in Instalments during the life time of the company. Debentures can be redeemed either at par or at premium.

(b) *Irredeemable Debentures:* Irredeemable debentures are also known as *Perpetual Debentures* because the company does not given any undertaking for the repayment of money borrowed by issuing such debentures. These debentures are repayable on the on winding-up of a company or on the expiry of a long period.

2.3.3 From the Point of view of Convertibility

(a) *Convertible Debentures:* Debentures which are convertible into equity shares or in any other security either at the option of the company or the debentureholders are called convertible debentures. These debentures are either fully convertible or partly convertible.

(b) *Non-Convertible Debentures :* The debentures which cannot be converted into shares or in any other securities are called non-convertible debentures. Most debentures issued by companies fell in this category.

2.3.4 From Coupon Rate Point of view

(a) *Specific Coupon Rate Debentures*: These debentures are issued with a specified rate of interest, which is called the coupon rate. The specified rate may either be fixed or floating. The floating interest rate is usually tagged with the bank rate.

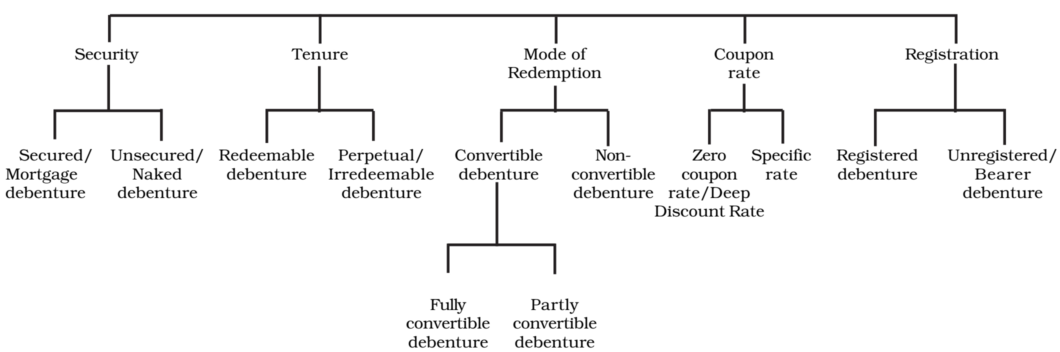
(b) *Zero Coupon Rate Debentures*: These debentures do not carry a specific rate of interest. In order to compensate the investors, such debentures are issued at substantial discount and the difference between the nominal value and the issue price is treated as the amount of interest related to the duration of the debentures.

2.3.5 From the view Point of Registration

(a) *Registered Debentures*: Registered debentures are those debentures in respect of which all details including names, addresses and particulars of holding of the debentureholders are entered in a register kept by the company. Such debentures can be transferred only by executing a regular transfer deed.

(b) *Bearer Debentures*: Bearer debentures are the debentures which can be transferred by way of delivery and the company does not keep any

Types of Debenture/Bond



record of the debentureholders. Interest on debentures is paid to a person who produces the interest coupon attached to such debentures.

2.4 Issue of Debentures

The procedure for the issue of debentures is the same as that for the issue of shares. The intending investors apply for debentures on the basis of the prospectus issued by the company. The company may either ask for the entire amount to be paid on application or by means of instalments on application, on allotment and on various calls. Debentures can be issued at par, at a premium or at a discount. They can also be issued for consideration other than cash or as a collateral security.

2.4.1 Issue of Debentures for Cash

Debentures are said to be issued at par when their issue price is equal to the face value. The journal entries recorded for such issue are as under:

(a) *If whole amount is received in one instalment:*

(i) On receipt of the application money
Bank A/c Dr.
To Debenture Application & Allotment A/c

(ii) On Allotment of debentures
Debenture Application & Allotment A/c Dr.
To Debentures A/c

(b) *If debenture amount is received in two instalments:*

(i) On receipt of application money
Bank A/c Dr.
To Debenture Application A/c

(ii) For adjustment of applications money on allotment
Debenture Application A/c Dr.
To Debentures A/c

(iii) For allotment money due
Debenture Allotment A/c Dr.
To Debentures A/c

(iv) On receipt of allotment money
Bank A/c Dr.
To Debenture Allotment A/c

(c) *If debenture money is received in more than two instalments*
Additional entries:

(i) On making the first call
Debenture First Call A/c Dr.
To Debentures A/c

(ii) On the receipt of the first call
Bank A/c Dr.
To Debenture First Call A/c

Note: Similar entries may be made for the second call and final call. However, normally the whole amount is collected on application or in two instalments, i.e. on application and allotment.

Illustration 1

ABC Ltd. issued Rs.10,000, 12% debentures of Rs.100 each payable Rs.30 on application and remaining amount on allotment. The public applied for 9,000 debentures which were fully allotted, and all the relevant allotment money was duly received. Give journal entries in the books of ABC Ltd., and exhibit the relevent information in the balance sheet.

Solution:

Books of ABC Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr. To 12% Debenture Application A/c (Application money on 9,000 debentures received)		2,70,000	 2,70,000
	12% Debenture Application A/c Dr. To 12% Debentures A/c (Application money transferred to debentures Account on allotment)		2,70,000	 2,70,000
	12% Debenture Allotment A/c Dr. To 12% Debentures A/c (Amount due on 9,000 debentures on allotment @ Rs.70 per debenture)		6,30,000	 6,30,000
	Bank A/c Dr. To 12% Debenture Allotment A/c (Amount received on allotment)		6,30,000	 6,30,000

ABC Limited

Balance Sheet as at ....

Particulars	Note No.	31st March 2014 (Rs.)
I. Equity and Liabilities		
Non-current liabilities and Long-term borrowings	1	**9,00,000**
II. Assets		
Current assets		
Cash and cash equivalents	2	**9,00,000**

* Relevant data only

Notes to Accounts

Particulars	31st March 2014 (Rs.)
1. Long-term borrowings	
9,000, 12% Debentures of Rs. 100 each	**9,00,000**
2. Cash and cash equivalents	
Cash at bank	**9,00,000**

2.4.2 Issue of Debentures at a Discount

When a debenture is issued at a price below its nominal value, it is said to be issued at a discount. For example, the issue of Rs.100 debentures at Rs.95, Rs.5 being the amount of discount. Discount on issue of debentures is a capital loss and over a period of 3 to 5 years or is charged to “Securities Premium Account” as per the guidelines issued by ICAI. The discount on issue of debentures can be written-off either by debiting it to profit and loss.

The Companies Act, 1956 does not impose any restrictions upon the issue of debentures at a discount.

Illustration 2

TV Components Ltd. issued 10,000, 12% debentures of Rs.100 each at a discount of 5% payable as follows:

On application Rs.40
On allotment Rs.55

Show the journal entries including those for cash, assuming that all the instalments were duly collected. Also show the relevant portion of the balance sheet.

Solution

Books of TV Components Ltd.
Journal

Date	Particulars		L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Bank A/c	Dr.		4,00,000	
	To 12% Debenture Application A/c				4,00,000
	(Receipt of application money @ Rs. 30 per debenture)				
	12% Debenture Application A/c	Dr.		4,00,000	
	To 12% Debenture A/c				4,00,000
	(Transfer of application money to debenture account)				
	12% Debenture Allotment A/c	Dr.		5,50,000	
	Discount on Issue of Debentures A/c			50,000	
	To 12% Debenture A/c				6,00,000
	(Allotment money due on debentures)				
	Bank A/c	Dr.		5,50,000	
	To 12% Debenture Allotment A/c				5,50,000
	(Receipt of allotment money on debentures)				

TV Components Limited

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

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Non-current Liabilities		
Long-term borrowings	1	**10,00,000**
II. Assets		
1. Non-current assets		
Other non-current assets	2	45,000
2. Current assets		
a) Cash and cash equivalents	3	9,50,000
b) Other current assets	4	5,000
		10,00,000

Notes to Accounts

Particulars	Amount (Rs.)
1. Long-term borrowings	
10,000, 12% secured debentures of Rs.100 each	10,00,000
2. Other non-current assets	
Discount on issue of debentures	45,000
3. Cash and cash equivalents	
Cash at bank	9,50,000
4. Other current assets	
Discount on issue of debentures (To be written-off within 12 months of the balance sheet date or the period of operating cycle)	5,000

Notes:

1 It is presumed that debentures are redeemable after 10 years.

2 Relevant data only.

2.4.3 Debentures issued at Premium

A debenture is said to be issued at a premium when the price charged is more than its nominal value. For example, the issue of Rs.100 debentures for Rs.110, (Rs.10 is being the premium). The amount of premium is credited to Securities Premium account and is shown on the liabilities side of the balance sheet under the head "Reserves and Surpluses".

Illustration 3

XYZ Industries Ltd. issued 2,000, 10% debentures of Rs.100 each, at a premium of Rs.10 per debenture payable as follows:

On application	Rs.50
On allotment	Rs.60

The debentures were fully subscribed and all money was duly received. Record the journal entries in the books of company. Show how the amounts will appear in the balance sheet.

Solution:

Books of XYZ Industries Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c	Dr.		1,00,000	
	To 10% Debenture Application A/c				1,00,000
	(application money on 10% debentures received)				
	10% Debenture Application A/c	Dr.		1,00,000	
	To 10% Debentures A/c				1,00,000
	(Transfer of application money on allotment)				
	10% Debenture Allotment A/c	Dr.		1,20,000	
	To 10% Debentures A/c				1,00,000
	To Securities Premium A/c				20,000
	(Allotment money due on debentures including the premium)				
	Bank A/c	Dr.		1,20,000	
	To 10% Debenture Allotment A/c				1,20,000
	(Allotment money received)				

XYZ Industries Limited
Balance Sheet as at ———

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Shareholders' Funds		
Reserve and surplus- Surplus	1	20,000
2. Non-current Liabilities		
Long-term borrowings	2	2,00,000
		2,20,000
II. Assets		
Current Assets		
Cash and cash equivalents		**2,20,000**

Notes to Accounts

Particulars	Amount (Rs.)
1. Reserve and surplus	
Securties Premium	**20,000**
2. Long-term borrowings	
2,000, 10% debentures of Rs. 100 each	**2,00,000**
3. Cash and cash equivalents	
Cash at bank	**2,20,000**

Illustration 4

A Ltd. issued 5,000, 10% debentures of Rs.100 each, at a premium of Rs.10 per debenture payable as follows:

On application	Rs.25
On allotment	Rs.45 (including premium)
On first and final call	Rs.40

The debentures were fully subscribed and all money was duly received. Record the necessary entries in the books of the company. Show how the amounts will appear in the balance sheet.

Solution:

Books of A Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c Dr.		1,25,000	
	To 10% Debenture Application A/c			1,25,000
	(Application money on 10% debentures received)			
	10% Debenture Application A/c Dr.		1,25,000	
	To 10% Debentures A/c			1,25,000
	(Transfer of application money on allotment)			
	10% Debenture Allotment A/c Dr.		2,25,000	
	To 10% Debentures A/c			1,75,000
	To Securities Premium A/c			50,000
	(Allotment money of due on debentures including the premium)			

	Bank A/c Dr. To 10% Debenture Allotment A/c (Allotment money received)		2,25,000	 2,25,000
	10% Debenture First & Final Call A/c Dr. To 10% Debentures A/c (First and final call money due on debentures)		2,00,000	 2,00,000
	Bank A/c Dr. To 10% Debenture A/c (First and final call money received)		2,00,000	 2,00,000

A Limited

Balance Sheet as at ———

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Shareholders' Funds		
a) Reserve and surplus- Surplus	1	50,000
2. Non-current Liabilities		
Long term borrowings	2	5,00,000
Total		**5,50,000**
II. Assets		
1. Current assets		
a) Cash and cash equivalents		**5,50,000**

Notes to Accounts

Particulars	Amount (Rs.)
1. Reserve and surplus	
Securities premium	**50,000**
2. Long-term borrowings	
Secured	
5,000, 10% debentures of Rs. 100 each	**5,00,000**

2.5 Over Subscription

When the number of debentures applied for is more than the number of debentures offered to the public, the issue is said to be over subscribed. A company, however, cannot allot more debentures than it has invited for subscription. The excess money received on over subscription may, however, be retained for adjustment towards allotment and the respective calls to be made. But the money received from applicants to whom no debentures have been allotted, will be refunded to them.

Illustration 5

X Ltd. Issued 10,000, 12% debentures of Rs.100 each payable Rs.40 on application and Rs.60 on allotment. The public applied for Rs.14,000 debentures. Applications for 9,000 debentures were accepted in full; applications for 2,000 debentures were allotted 1,000 debentures and the remaining applications, were rejected. All money was duly received. Journalise the transactions.

Solution:

Books of X Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c	Dr.		5,60,000	
	To 12% Debenture Application A/c				5,60,000
	(Receipt of application money on 14,000 debentures)				
	12% Debenture Application A/c	Dr.		4,00,000	
	To 12% Debentures A/c				4,00,000
	(Transfer of application money on 10,000 debentures on allotment)				
	12% Debenture Application A/c	Dr.		1,20,000	
	To Bank A/c				1,20,000
	(Application money on rejected applications refunded)				
	12% Debenture Allotment A/c	Dr.		6,00,000	
	To 12% Debentures A/c				6,00,000
	(Amount due on allotment on 10,000 debentures)				
	Bank A/c	Dr.		5,60,000	
	Debenture Application A/c	Dr.		40,000	
	To Debenture Allotment A/c				6,00,000
	(Surplus application money on 1,000 debentures transferred to debenture allotment account and the balance due was received)				

2.6 Issue of Debentures for Consideration other than Cash

Sometimes a company purchase assets from vendors and instead of making payment in cash issues debentures for consideration thereof. Such issue of debentures is called debentures issued for consideration other than cash. In that case also, the debentures may be issued at par, at a premium or at a discount then entries made in such a situation are similar to those of the shares issued for consideration other than cash, which are as follows :

1. *On purchase of assets*

   Sundry Assets A/c Dr.
   To Vendor's

2. *On issue of debentures*

   (a) At Par

   Vendors Dr.
   To Debentures A/c

   (b) At premium

   Vendors Dr.
   To Debentures A/c
   To Securities Premium A/c

   (c) At a discount

   Vendors Dr.
   Discount on Issue of Debenture A/c Dr.
   To Debentures A/c

Illustration 6

Aashirward Company Ltd.purchased assets of the book value of Rs. 2,00,000 from another company and agreed to make the payment of purchase consideration by issuing 2,000, 10% debentures of Rs.100 each.

Record the necessary journal entries.

Solution:

Books of Aashirwad Company Limited
Journal

Date	Particulars	L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Sundry Assets A/c Dr. To Vendors (Assets purchased from vendors)		2,00,000	2,00,000
	Vendors Dr. To 10% Debentures A/c (Allotment of debentures to vendors as purchase consideration)		2,00,000	2,00,000

Illustration 7

Rai Company purchased assets of the book value of Rs. 2,20,000 from another company and agreed to make the payment of purchase consideration by issuing 2,000, 10% debentures of Rs. 100 each at a premium of 10%.

Record necessary journal entries.

Solution:

Books of Rai Company Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Sundry Assets A/c Dr.		2,20,000	
	To Vendors			2,20,000
	(Assets purchased from vendors)			
	Vendors Dr.		2,20,000	
	To 10% Debentures A/c			2,00,000
	To Securities Premium A/c			20,000
	(Allotment of 2,000 debentures of Rs. 100 each at a premium of 10% as purchase consideration)			

Illustration 8

National Packaging Company purchased assets of the value of Rs. 1,90,000 from another company and agreed to make the payment of purchase consideration by issuing 2,000, 10% debentures of Rs. 100 each at a discount of 5%.

Record necessary journal entries.

Solution:

Books of National Packaging Company
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Sundry Assets A/c Dr.		1,90,000	
	To Vendors			1,90,000
	(Assets purchased from vendors)			
	Vendors Dr.		1,90,000	
	Discount on Issue of Debenture A/c Dr.		10,000	
	To 10% Debentures A/c			2,00,000
	(Allotment of debentures - 2,000 debentures of Rs. 100 each at a discount of 5% as purchase consideration)			

Illustration 9

G.S.Rai company purchased assets of the book value of Rs. 99,000 from another firm. It was agreed that purchase consideration be paid by issuing 11% debentures of Rs. 100 each. Assume debentures have been issued.

1. At par
2. At discount of 10%, and
3. At a premium of 10%.

Record necessary journal entries.

Solution:

Books of G.S.Rai Company Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Sundry Assets A/c	Dr.		99,000	
	To Vendors				99,000
	(Assets purchased from vendors)				
In Ist Case	Vendors	Dr.		99,000	
	To 10% Debentures A/c				99,000
	(Allotment of debentures to vendors as purchase consideration)				
In IInd Case	Vendors	Dr.		99,000	
	Discount on Issue of Debenture A/c	Dr.		11,000	
	To 10% Debentures A/c				1,10,000
	(1,100 debenture of Rs. 100 issued at discount of 10% to vendor)				
In IIIrd Case	Vendors	Dr.		99,000	
	To 11% Debentures A/c				90,000
	To Securities Premium A/c				9,000
	(900 debentures of Rs. 100 issued at a premium of 10% to the vendors)				

Sometimes a company may purchase the assets as well as take over its liabilities of another concern. It happens usually is case of purchase of the whole business of the other concern. In such a situation, the purchase consideration will be equal to the value of net assets and assets - liabilities) taken over, and if the whole amount of the consideration is paid by issue of debentures, the journal entry will be:

Sundry Assets A/c Dr.				
To Sundry Liabilities A/c				
To Vendors				
(Purchase of the Vendors' business)				

Illustration 10

Romi Ltd. acquired assets of Rs. 20 lakh and took over creditors of Rs. 2 lakh from Kapil Enterprises. Romi Ltd. issued 8% debentures of Rs. 100 each at par as purchase consideration. Record necessary journal entries in the books of Romi Ltd.

Solution:

Books of Romi Ltd.
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Sundry Assets A/c Dr.		20,00,000	
	To Kapil Enterprises			18,00,000
	To Sundry Creditors A/c			2,00,000
	(The purchase of business)			
	Vendors Dr.		18,00,000	
	To 8% Debentures A/c			18,00,000
	(The issue of 18,000, 8% debentures of Rs. 100 each)			

In case of the whole business being taken over if the amount of debentures issued is more than the amount of the net assets taken over, Its difference (excess) will be treated as value of goodwill and the same shall also be debited while passing the journal entry for the purchase of vender's business (see Illustration 10). But if it is the other way round, i.e. the value of debentures is less than the value of the net assets taken over the difference will be credited to capital Reserve accounts (See Illustration 12).

Illustration 11

Blue Prints Ltd. Purchased building worth Rs.1,50,000, machinery worth Rs.1,40,000 and furniture worth Rs.10,000 from XYZ Co. and took over its liabilities of Rs.20,000 for a purchase consideration of Rs.3,15,000. Blue Prints Ltd. paid the purchase consideration by issuing 12% debentures of Rs.100 each at a premium of 5%. Record necessary journal entries.

Solution:

Books of Blue Prints Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Building A/c	Dr.		1,50,000	
	Plant & Machinery A/c	Dr.		1,40,000	
	Furniture A/c	Dr.		10,000	
	Goodwill A/c [1]	Dr.		35,000	
	To Liabilities (Sundry)				20,000
	To XYZ Co.				3,15,000
	(Purchase of assets and taking over of liabilities of XYZ Co.)				
	XYZ Co.	Dr.		3,15,000	
	To 12% Debentures A/c				3,00,000
	To Securities Premium A/c				15,000
	(Issue of 3,000 debentures at a premium of 5%)				

Note: 1. Since the purchase consideration is more than net assets taken over, the difference has been debited to Goodwill account.

2. No. of debentures issued $= \dfrac{\text{Purchase Consideration}}{\text{Issue Price of a Debenture}}$

No. of debentures $= \dfrac{\text{Rs. } 3{,}15{,}000}{105} = 3{,}000$

Illustration 12

A Ltd. took over the assets of Rs.3,00,000 and liabilities of Rs.10,000 from B & Co. Ltd. for an agreed purchase consideration of Rs.2,70,000 to be satisfied by issue of 15% debentures of Rs.100 at 20% premium. Show the journal entries in the journal of A Ltd.

Solution:

Books of A Limited
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Sundry Assets A/c	Dr.		3,00,000	
	To Sundry Liabilities A/c				10,000
	To B & Co. Ltd.				2,70,000
	To Capital Reserve				20,000
	(Purchase of assets and liabilities from B Ltd.)				

	B & Co. Ltd. Dr.		2,70,000	
	To 15% Debentures A/c			2,25,000
	To Securities Premium A/c			45,000
	(Issue of 2250 debentures of Rs.100 each at a premium of 20%)			

Do it Yourself

1. Amrit Company Limited purchased assets of the value of Rs.2,20,000 from another company and agreed to make the payment of purchase consideration by issuing 2,000, 10% debentures of Rs.100 each at a premium of 10%. Record necessary journal entries.
2. A company purchased assets of the value of Rs.1,90,000 from another company and agreed to make the payment of purchase consideration by issuing 2,000, 10% debentures of Rs.100 each at a discount of 5%. Record necessary journal entries.
3. Rose Bond Limited purchased a business for Rs. 22,00,000. Purchase Price was paid by 6% debentures. Debentures of Rs. 20,00,000 were issued at a premium of 10% for the purpose. Record necessary journal entries.
4. Nikhil and Ashwin Limited bought business of Agarwal Limited consisting sundry assts of Rs. 3,60,000, sundry creditors Rs. 1,00,000 for a consideration of Rs. 3,07,200. It issued 14% debentures of Rs. 100 each fully paid at a discount of 4% in satisfaction of purchase consideration. Record necessary journal entries.

Illustration 13

Suvidha Ltd. purchased machinery worth Rs.1,98,000 from Suppliers Ltd. The payment was made by issue of 12% debentures of Rs.100 each.

Pass the necessary journal entries for the purchase of machinery and issue of debentures when:

(i) Debentures are issued at par;
(ii) Debentures are issued at 10% discount; and
(iii) Debentures are issued at 10% premium

Solution:

Books of Suvidha Ltd.
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Machinery A/c Dr.		1,98,000	
	To Suppliers Ltd.			1,98,000
	(Machinery purchased)			

Case(i)	When debentures are issued at par:				
	Suppliers Ltd.	Dr.		1,98,000	
	To 12% Debentures A/c				1,98,000
	(12% Debentures issued to Suppliers Ltd.)				
Case(ii)	When debentures are issued at 10% discount:				
	Suppliers Ltd.	Dr.		1,98,000	
	Discount on Issue of Debentures A/c	Dr.		22,000	
	To 12% Debentures A/c				2,20,000
	(12% Debentures issued to Suppliers Ltd. at 10% discount)				
Case(iii)	When debentures are issued at 10% premium:				
	Suppliers Ltd.	Dr.		1,98,000	
	To 12% Debentures A/c				1,80,000
	To Premium on Issue of Debentures A/c				18,000
	(12% Debentures issued to Suppliers Ltd. at 10% premium)				

Workings:

(a) Number of debentures issued in case of 10% discount:

	(Rs.)
Face value	100
Less: Discount 10%	10
Value at which issued	90

$$\frac{\text{Rs. } 1,98,000}{90} = 2,200 \text{ Debentures}$$

(b) Number of debentures issued in case of 10% premium:

	(Rs.)
Face value	100
Add: Premium 10%	10
Value at which issued	110

$$\frac{\text{Rs.}1,98,000}{110} = 1,800 \text{ Debentures}$$

2.7 Issue of Debentures as a Collateral Security

A collateral security may be defined as a subsidiary or secondary or additional security besides the primary security when a company obtains a loan or overdraft from a bank or any other financial Institution. It may pledge or mortgage some assets as a secured loan against the said loan. But the lending institutions may insist on additional assets as collateral security so that the amount of loan can be realised in full with the help of collateral security in case the amount from the sale of principal security falls short of the loan money. In such situation, the company may issue its own debentures to the lenders in addition to some other assets already pledged. Such an issue of debentures is known as 'Debentures issued as Collateral Security'.

If the company fails to repay the loan along with interest, the lender is free to receive his money from the sale of primary security and if the realisable value of the primary security falls short to cover the entire amount, the lender has the right to invoke the benefit of collateral security whereby debentures may either be presented for redemption or sold in the open market.

Debentures issued as collateral security can be dealt with in two ways in the books of the company:

First Method

No entry is made in the books of accounts since no liability is created by such issue. However, on the liability side of the balance sheet, below the item of loan, a note to the effect that it has been secured by issue of debentures as a collateral security is appended. For example, X Company has issued 9%, 10,000 debentures of Rs.100 each for a loan of Rs.10, 00,000 taken from a bank. This fact may be shown in the balance sheet as under:

X Company
Balance Sheet as at __________

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Non-current Liabilities		
Long-term borrowings	1	10,00,000

Notes to Accounts

Particulars	Amount (Rs.)
1. Long-term borrowings	
Secured	
Bank Loan	10,0,000
(Secured by issue of 12,000, 10% debentures of Rs.10 each as Collatoral Security)	

Second Method

The issue of debentures as a collateral security may be recorded by means of journal entry as follows:

Journal Entries

i. Issue of 10,000, 9% debentures of Rs.100 each as collateral security for bank loan of Rs.10,00,000.

Debenture Suspense A/c	Dr.	10,00,000	
To 9% Debentures A/c			10,00,000

ii. For cancellation of 9% debentures as collateral security on repayment of bank loan.

Debenture Suspense account will appear as a deduction from the debentures on the liability side of the balance sheet. When loan is repaid the above entry will be cancelled by a reverse entry :

9% Debentures A/c	Dr.	10,00,000	
To Debenture Suspense A/c			10,00,000

Balance Sheet of X Co. ______________ (Extract)

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Non-current Liabilities		
Long term borrowings	1	**1,00,000**

Notes to Accounts

Particulars	Note No.	Amount (Rs.)
1. Long-term borrowings		
Secured		10,00,000
Bank loan		
10,000, 9% debentures of		
Rs. 100 each	10,00,000	
Less: Debenture suspense	10,00,000	-
		10,00,000

Illustration 14

A company took a loan of Rs.10,00,000 from Punjab National Bank and issued 10% debentures of Rs.12,00,000 of Rs.100 each as a collateral security. Explain how you will deal with the issue of debentures in the books of the company.

Solution:

First Method:

Balance Sheet (Extract)

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Non-current Liabilities		
Long-term borrowings	1	**10,00,000**

Notes to Accounts

Particulars	Note No.	Amount (Rs.)
1. Long-term borrowings		
Secured Bank loan		**10,00,000**
(Secured by issue of 12,000, 10% debentures of Rs. 10 each as Collatoral Security		

Second Method:

Journal Entries

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Debenture Suspense A/c Dr.		12,00,000	
	To 10% Debentures A/c			12,00,000
	(12,000 debenture of Rs.100 each issued as collateral security to P.N.Bank)			

Balance Sheet (Extract)

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Non-current Liabilities		
Long-term borrowings	1	**10,00,000**

Notes to Accounts

Particulars	Note No.	Amount (Rs.)
1. Long-term borrowings		
Secured		10,00,000
Loan from PNB		
12,000, 10% debentures	12,00,000	
Less: Debenture		-
Suspense	12,00,000	
		10,00,000

Do it Yourself

1. Raghuveer Limited issued Rs.10,00,000, 8% debentures as follows to:

		Rs.
1.	Sundry Subscribers for Cash at 90%	5,50,000
2.	Creditor for Rs. 2,00,000 capital expenditure in satisfaction of his claim	2,00,000
3.	Bankers as Collateral Security for a bank loan worth Rs. 20,00,000 for which principal security is Business Premises worth Rs. 22,50,000.	2,50,000

   The issue (1) and (2) are redeemable at the end of 10 years at par. State how the debenture inventory be dealt with while preparing the balance sheet of a company.
2. Hassan Limited took a loan of Rs. 30,00,000 from a bank against primary security worth Rs. 40,00,000 and issued 4,000, 6% debentures of Rs. 100 each as a collateral security. The company again after one year took a loan of Rs. 50,00,000 from bank against Plant as primary security and deposited 6,000, 6% debentures of Rs. 100 each as collateral security. Record necessary journal entries and prepare balance sheet of the company.
3. Meghnath Limited took a loan of Rs. 1,20,000 from a bank and deposited 1,400, 8% debentures of Rs.100 each as collateral security along with primary security worth Rs. 2 lakhs. Company again took a loan of Rs. 80,000 after two months from a bank and deposited 1,000, 8% debentures of Rs. 100 each as collateral security. Record necessary journal entries and prepare balance sheet of the company.

2.8 Terms of Issue of Debentures

When a company issues debentures, it usually mentions the terms on which they will be redeemed on their maturity. Redemption of debentures means discharge of liability on account of debentures by repayment made to the debentureholders. Debentures can be redeemed either at par or at a premium.

Depending upon the terms and conditions of issue and redemption of debentures, the following six situations are commonly found in practice.

(i) Issued at par and redeemable at par

(ii) Issued at discount and redeemable at par

(iii) Issued at a premium and redeemable at par

(iv) Issued at par and redeemable at a premium

(v) Issued at a discount and redeemable at a premium

(vi) Issued at a premium and redeemable at a premium

The journal entries to be recorded for the for above six cases of issue of debentures are as follows:

1. *Issue at par and redeemable at par*

(a)	Bank A/c	Dr.
	To Debenture Application & Allotment A/c	
	(Receipt of application money)	
(b)	Debenture Application & Allotment A/c	Dr.
	To Debentures A/c	
	(Allotment of debentures)	

2. *Issue at a discount and redeemable at par*

(a)	Bank A/c	Dr.
	To Debenture Application & Allotment A/c	
	(Receipt of application money)	
(b)	Debenture Application & Allotment A/c	Dr.
	Discount on Issue of Debentures A/c	Dr.
	To Debentures A/c	
	(Allotment of debentures at a discount)	

3. *Issue at premium and redemption at par*

(a)	Bank A/c	Dr.
	To Debenture Application & Allotment A/c	
	(Receipt of application money)	
(b)	Debenture Application & Allotment A/c	Dr.
	To Debentures A/c	
	To Securities Premium A/c	
	(Allotment of debentures at a premium)	

4. *Issue at par and redeemable at premium*

(a)	Bank A/c	Dr.
	To Debenture Application & Allotment A/c	
	(Receipt of application money)	
(b)	Debenture Application & Allotment A/c	Dr.
	Loss on Issue of Debentures A/c	Dr.(with premium on redemption)
	To Debentures A/c	(with nominal value of debenture)
	To Premium on Redemption of Debenture A/c	(with premium on redemption)
	(Allotment of debentures at par and redeemade at a premium)	

5. Issue at discount and redemption at premium

Bank A/c Dr.
To Debenture Application & Allotment A/c
(Receipt of application money)

Debenture Application & Allotment A/c Dr.
Loss on Issue of Debentures A/c Dr. (with discount on issue plus premium on redemption)
To Debentures A/c (with nominal value of debenture)
To Premium on Redemption of Debentures A/c (with premium on redemption)
(Allotment of debentures at a discount and redeemable at premium)

6. Issued at a premium and redeemable at premium

Bank A/c Dr.
To Debenture Application & Allotment A/c
(Receipt of application money)

Debenture Application & Allotment A/c Dr.
Loss on Issue of Debentures A/c Dr.(with premium on redemption)
To Debentures A/c (with nominal value of debenture)
To Securities Premium A/c (with premium on issue)
To Premium on Redemption of Debentures A/c (with premium on redemption)

Notes:

1. When debentures are redeemable at a premium, a provision has to be made right at the time of the issue by debiting the amount to 'Loss on Issue of Debentures A/c'. It may be noted that when debentures are issued at a discount and are redeemable at a premium, the amount of discount on issue is also debited to 'Loss on Issue of Debentures'. It may be noted that when the debentures are issued at a discount and are redeemable at par, the amount debited to 'Discount on Issue of Debentures A/c' as usual.
2. Premium on redemption is a liability of a company payable in future. It is a provision and is shown under the head Non-current liabilities under sub-head 'Long-term Borrowing's until debentures are redeemed.
3. Loss on issue of debentures is a capital loss and it is to be written-off gradually charged to statement of profit and loss or securities premium account.

Illustration 15

Give Journal Entries for the following:

1. Issue of 1,00,000, 9% debentures of Rs. 100 each and redeemable at par.

2. Issue of 1,00,000, 9% debentures of Rs. 100 each at premium of 5% but redeemable at par.
3. Issue of 1,00,000, 9% debentures of Rs. 100 each at discount of 5% repayable at par.
4. Issue of 1,00,000, 9% debentures of Rs. 100 each at par but repayable at a premium of 5%.
5. Issue of 1,00,000, 9% debentures of Rs. 100 each at discount of 5% but redeemable at premium of 5%.
6. Issue of 1,00,000, 9% debentures of Rs. 100 each at premium of 5% and redeemable at premium of 5%.

Solution:

Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
1	Bank A/c Dr.		1,00,000	
	To 9% Debenture Application & Allotment A/c			1,00,000
	(Debentures Application money received)			
	Debenture Application & Allotment A/c Dr.		1,00,000	
	To 9% Debentures A/c			1,00,000
	(Application money transferred to Debentures Account)			
2	Bank A/c Dr.		1,05,000	
	To 9% Debenture Application & Allotment A/c			1,05,000
	(Debentures application money received)			
	Debenture Application & Allotment A/c Dr.		1,05,000	
	To 9% Debentures A/c			1,00,000
	To Securities Premium A/c			5,000
	(Debentures application money transferred to Debentures & Securities Premium account)			
3	Bank A/c Dr.		95,000	
	To 9% Debenture Application & Allotment A/c			95,000
	(Debentures application money received)			
	9% Debenture Application & Allotment A/c Dr.		95,000	
	Discount on Issue of Debentures A/c Dr.		5,000	
	To 9% Debentures A/c			1,00,000
	(Debentures application money transferred to Debentures account)			

4	Bank A/c Dr.		1,00,000	
	To 9% Debenture Application & Allotment A/c			1,00,000
	(Debentures Application money received)			
	Debenture Application & Allotment A/c Dr.		1,00,000	
	Loss on Issue of Debentures A/c Dr.		5,000	
	To 9% Debentures A/c			1,00,000
	To Premium on Redemption of Debentures A/c			5,000
	(Debentures Application money transferred to Debentures account)			
5	Bank A/c Dr.		95,000	
	To 9% Debenture Application & Allotment A/c			95,000
	(Debentures Application money received)			
	Debenture Application & Allotment A/c Dr.		95,000	
	Loss on Issue of Debentures A/c Dr.		10,000	
	To 9% Debentures A/c			1,00,000
	To Premium on Redemption of Debentures A/c			5,000
	(Debentures application money transferred to debentures and Premium on debenture account)			
6	Bank A/c Dr.		1,05,000	
	To 9% Debenture Application & Allotment A/c			1,05,000
	(Debentures Application money received)			
	Debenture Application & Allotment A/c Dr.		1,05,000	
	Loss on Issue of Debentures A/c Dr.		5,000	
	To 9% Debenture A/c			1,00,000
	To Premium on Redemption of Debentures A/c			5,000
	To Securities Premium A/c			5,000
	(Debenture application money transferred to debentures account)			

Illustration 16

You are required to pass the journal entries relating to the issue of the debentures in the books of X Ltd. and show how they would appear in its balance sheet under the following cases:

(a) 120, 8% debentures of Rs.1,000 each are issued at 5% discount and repayable at par.

(b) 150, 7% debentures of Rs.1,000 each are issued at 5% discount and repayable at premium of 10%.

(c) 80, 9% debentures of Rs.1,000 each are issued at 5% premium.

(d) Another 400, 8% debentures of Rs.100 each are issued as collateral security against a loan of Rs.40,000.

Solution:

Books of X Ltd.

(a) **Journal**

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c	Dr.		1,14,000	
	Discount on issue of Debentures A/c	Dr.		6,000	
	To 8% Debentures A/c				1,20,000
	(Issue of 120, 8% debentures at a discount of 5% repayable at par)				

Books of X Ltd.

Balance Sheet as at____________

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Non-current Liabilities		
Long-term borrowings	1	1,20,000
		1,20,000
II. Assets		
1. Non-current assets		
Other non-current assets	2	4,800
2. Current assets		
Cash and cash equivalents	3	1,14,000
Other current assets	4	1,200
		1,20,000

Notes to Accounts

Particulars	Amount (Rs.)
1. Long-term borrowings	
120, 8% debentures of Rs. 1,000 each	**1,20,000**
2. Other non-current assets	
Discount on issue of debentures	**4,800**
3. Cash and cash equivalents	
Cash at bank	**1,14,000**
4. Other current assets	
Discount on issue of debentures	**1,200**

Note: Discount on Issue of Debentures is written-off in 5 years, presuming that debentures are redeemable after 5 years.

Books of X Ltd.

(b) **Journal**

Date	Particulars		L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Bank A/c	Dr.		1,42,500	
	Loss on Issue of Debentures A/c	Dr.		22,500*	
	To 7% Debentures A/c				1,50,000
	To Premium on Redemption of Debenture A/c				15,000
	(Issue of 150, 7% debentures at a discount of 5% repayable at premium of 10%)				

* Discount on issue of debentures Rs.7,500 and premium on redemption of debentures Rs.15,000.

Books of X Ltd.

Balance Sheet as at_______________

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Non-current Liabilities		
a) Long term borrowings	1	1,50,000
b) Other long-term liabilities	2	15,000
		1,65,000
II. Assets		
1. Non-current assets		
Other non-current assets	3	18,000
2. Current assets		
a) Cash and cash equivalents	4	1,42,000
b) Other current assets	5	4,500
		1,65,000

Notes to Accounts

Particulars	Amount (Rs.)
1. Long-term borrowings	
150, 7% debentures of Rs. 1,000 each	**1,50,000**
2. Other long-term liabilities	
Premium on redemption of debentures	**15,000**
3. Other non-current assets	
Loss on issue of debentures	**18,000**
4. Cash and cash equivalents	
Cash at bank	**1,42,500**
5. Other current assets	
Loss on issue of debentures	**4,500**

Note: Discount on Issue of Debentures is written-off in 5 years, presuming that debentures are redeemable after 5 years.

Books of X Ltd.

(c) **Journal**

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Bank A/c	Dr.		84,000	
	To 9% Debentures A/c				80,000
	To Securities premium A/c				4,000
	(Issue of 80, 9% debentures of Rs.1,000 each at 5% premium)				

X Ltd.

Balance Sheet as at ....

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Shareholder's funds		
Reserves and surplus	1	4,000
2. Non-current Liabilities		
Long-term borrowings	2	80,000
		84,000
II. Assets		
1. Current assets		
Cash and cash equivalents	3	84,000
		84,000

Notes to Accounts

Particulars	Amount (Rs.)
1. Reserves and surplus	
Securities premium reserve	**4,000**
2. Long-term borrowings	
80, 9% debentures of Rs. 1,000 each	**80,000**

Books of X Ltd.

(d) **Journal**

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Debenture Suspense A/c	Dr.		40,000	
	To 8% Debentures A/c				40,000
	(Issue of 400, 8% debentures of Rs.100 each as collateral security against a loan of Rs.40,000)				

X Ltd.

Balance Sheet as at _____________ (Extract)

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Long-term borrowings	1	**40,000**

Notes to Accounts

Particulars	Amount (Rs.)	Amount (Rs.)
1. Long-term borrowings		
Bank loan		40,000
400, 8% debentures of Rs. 100 each	40,000	
Less: Debentures suspense	40,000	-
		40,000

Do it Yourself

1. Nena Limited issued 50,000, 10% debentures of Rs. 100 each on the basis of the following conditions:
   a. Debentures issued at par and redeemable at par.
   b. Debentures issued at discount @ 5% and redeemable at par.
   c. Debentures issued at premium @ 10% and redeemable at par.
   d. Debentures issued at par and redeemable at premium @ 10%.
   e. Debentures issued at discount of 5% and redeemable at a premium of 10%.
   f. Debentures issued at premium of 6% and redeemable at a premium of 4%.

   Record necessary journal entries in the above mentioned cases at the time of issue and redemption of debentures.
2. Record necessary journal entries in each of the following cases:
   a. 27,000, 7% debentures of Rs. 100 each issued at par, redeemable at par.
   b. 25,000, 7% debentures of Rs. 100 each issued at par redeemable at 4% premium.
   c. 20,000, 7% debentures of Rs. 100 each issued at 5% discount and redeemable at par.
   d. 30,000, 7% debentures of Rs. 100 each issued at 5% discount and redeemable at 2½ % premium.
   e. 35,000, 7% debentures of Rs. 100 each issued at 4% premium and redeemable at premium of 5%.

2.9 Interest on Debentures

When a company issues debentures, it is under an obligation to pay interest thereon at fixed percentage (half yearly) periodically until debentures are repaid. This percentage is usually as part of the name of debentures like 8% debentures, 10%

debentures, etc., and interest payable is calculated at the nominal value of debentures.

Interest on debenture is a charge against the profit of the company and must be paid whether the company has earned any profit or not. According to Income Tax Act 1961, a company must deduct income tax at a prescribed rate from the interest payable on debentures if it exceeds the prescribed limit. It is called Tax Deducted at Source (TDS) and is to be deposited with the tax authorities. Of course, the debentureholders can adjust this amount against the tax due from them.

2.9.1 Accounting Treatment

The following journal entries are recorded in the books of a company in connection with the interest on debentures:

1. *When interest is due*
   Debenture Interest A/c Dr.
   To Income Tax payable A/c
   To Debentureholders A/c
   (Amount of interest due on debenture and tax deducted at source)

2. *For payment of interest to debentureholders*
   Debentureholders A/c Dr.
   To Bank A/c
   (Amount of interest paid to debentureholders)

3. *On transfer debenture Interest Account to statement of Profit and Loss*
   Profit and Loss A/c Dr.
   To Debenture Interest A/c
   (Debenture interest transferred to profit and loss A/c)

4. On payment of tax deducted at source to Government
   Income Tax Payable A/c Dr.
   To Bank A/c
   (Payment of tax deducted at source on interest on debentures)

Illustration 17

A Ltd. issued 2,000, 10% debentures of Rs.100 each on January 01, 2013 at a discount of 10% redeemable at a premium of 10%.

Give journal entries relating to the issue of debentures and debenture interest for the period ending December 31, 2013 assuming that interest was paid half yearly on June 30 and December 31 and tax deducted at source is 10%. A Ltd. follows calendar year as its accounting year.

Solution:

Book of A Ltd.
Journal

Date	Particulars		L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
2013 Jan.01	Bank A/c	Dr.		1,80,000	
	To 10% Debenture Application & Allotment A/c				1,80,000
	(Application money received on 2,000, 10% debentures)				
	10% Debentures Application & Allotment A/c	Dr.		1,80,000	
	Loss on Issue of Debenture A/c	Dr.		40,000	
	To 10% Debentures A/c				2,00,000
	To Premium on Redemption of Debentures A/c				20,000
	(Allotment of debentures at a discount of 10% and redeemable at a premium of 10%)				
Jun.30	10% Debenture Interest A/c	Dr.		10,000	
	To Debentureholders A/c				9,000
	To Income Tax Payable A/c				1,000
	(Interest due for 6 months and tax deducted at source)				
	10% Debenturesholders A/c	Dr.		9,000	
	To Bank A/c				9,000
	(Payment of interest)				
Dec.31	10% Debenture interest A/c	Dr.		10,000	
	To Debentureholders A/c				9,000
	To Income Tax Payable A/c				1,000
	(Interest due for 6 months and tax deducted at source)				
	10% Debenturesholders A/c	Dr.		9,000	
	To Bank A/c				9,000
	(Payment of interest)				
Dec.31	Income Tax Payable A/c	Dr.		2,000	
	To Bank A/c				2,000
	(Paid tax deducted at source to the government)				

	Statement of profit and loss Dr. To Debenture Interest A/c (Debenture interest transferred to profit and loss account)		20,000	20,000

Do it Yourself

1. Diwakar enterprises Ltd. Issued 10,00,000, 6% debentures on April 1, 2012. Interest is paid on September 30, 2012 and March 31, 2013.

   Record necessary journal entries assuming that income tax is deducted @30% of the amount of interest.

   (Amount of tax Rs. 18,000 for the year ending March 31, 2003)
2. Laser India Ltd. Issued 7,00,000, 8% debentures of Rs. 100 each at par. Company deducts income tax from the interest of these debentures at source. Interest is to be paid on these debentures half-yearly on September 30 and March 31, every year. Amount of income tax deducted half-yearly is Rs. 2,80,000.

2.10 Writing-off Discount/Loss on Issue of Debentures

The discount/loss on issue of debentures is a capital loss or a fictitious asset and, therefore, must be written-off during the life time of debentures. The amount of discount/loss on issue of debentures should normally not be written-off in the year of issue itself since the benefit of the debentures would accrue to the company till their redemption. The discount/loss on it is, therefore, treated as capital loss. The discount may be charged to securities premium A/c or may be written-of fover 3 to 5 years through statement of profit and loss as per guidelines issued by ICAI. On the asset side of Balance Sheet. Section 78 of The Companies Act, 1956 also permits the utilisation of 'Securities Premium Account' and other capital profits for writing off the discount/loss on issue of debentures. In case, however, there are no capital profits or if the capital profits are not adequate, the amount of such discount/loss can be written-off against the revenue profits every year by passing the following journal entry.

Profit and Loss A/c Dr.
To Discount/Loss on Issue of Debentures A/c
(Discount/loss on issue of debentures written-off)

Do it Yourself

1. X Ltd. Issued 2,000, 10% debentures of Rs.100 each at a discount of 8% on April, 2013 which are redeemable at par by annual drawings in 4 years commencing from March 31st, 2014 as per the following redemption plan:

   Ist Draw 10%, 2nd Draw 20%, 3rd Draw 30%, and 4th Draw 40%. Calculate the amount of discount to be written-off each year assuming that X Ltd. follows calendar year as its accounting year.

2. Z Ltd. issued 15,00,000, 10% debentures of Rs.50 each at premium of 10% payable as Rs.20 on application and balance on allotment. Debentures are redeemable at par after 6 years. All the money due on allotment was called and duly received. Record necessary entries when premium money is included:
   (i) in application money
   (ii) in allotment money
3. Z Ltd. issued 5,000, 10% debentures of Rs.100 each at a discount of 10% on 1.1.2012. The debentures are to be redeemed every year draw of lots – 1,000 debentures to be redeemed every year starting on 31.12.2012. Record the necessary journal entries including the payment of interest and writing off the discount on issue of debentures. The interest is payable on June 30th and 31st December. Z Ltd. Closes its books of accounts on December 31st every year.
4. M Ltd. issued 10,000, 8% debentures of Rs.100 each at a premium of 10% on 1.1.2014. It purchased sundry assets of the value of Rs,2,50,000 and took over the liabilities of Rs,1,90,000 and issued 8% debentures at a discount of 5% to the vendor. On the same date it took loan from the Bank for Rs.1,00,000 and issued 8% debentures as Collateral Security. Record the relevant journal entries in the books of M Ltd. and prepare the extract of balance sheet on 31.12.2012. Ignore interest.
5. On 1.1.2013 Fast Computers Ltd. issued 20,00,000, 6% debentures of Rs.100 each at a discount of 4%, redeemable at a premium of 5% after three years. The amount was payable as follows:

   On application Rs.50 per debenture,

   Balance on allotment,

   Record the necessary journal entries for issue of debentures.
6. D Ltd. Purchased machinery worth Rs.2,00,000 from E Ltd. on 1.1.2011. Rs.50,000 were paid immediately and the balance was paid by issue of Rs.1,60,000, 12% Debentures in D Ltd. Record the necessary journal entries for recording the transactions in the books of D Ltd.
7. X Ltd. decides to redeem 8,000, 10% debentures of Rs.100 each on January 1, 2013 at a premium of 5%. The company has a surplus of Rs.9, 00,000 in the statement of profit and loss. The company closes its books on December 31st every year. What journal entries the company will be recording to redeem the above debentures ?
8. G Ltd. issued 5,00,000, 12% debentures of Rs.100 each on April 1, 2010 redeemable at par on July 1, 2014. The company received applications for 6,00,000 debentures and the allotment was made to all the applicants on pro-rata basis. The debentures were redeemed on due date. How much amount of Debenture Redemption Reserve is to be created before the redemption is carried out? Also record necessary journal entries regarding issue and redemption of debenture. Ignore tax deducted at source.

Illustration 18

A Ltd. Company has issued Rs.1,00,000, 9% debentures at a discount of 6%. These debentures are to be redeemed equally, spread over 5 annual instalments. Show Discount on issue of debentures account for five years.

Solution:

Books of A Ltd.
Discount on Issue of Debentures Account

Dr. *Cr.*

Date	*Particulars*	*Amount (Rs.)*	*Date*	*Particulars*	*Amount (Rs.)*
Ist year	Debenture	6,000	Ist year	Profit & Loss Balance c/d	2,000 4,000
		6,000			**6,000**
IInd year	Balance b/d	4,000	IInd year	Profit & Loss Balance c/d	1,600 2,400
		4,000			**4,000**
IIIrd year	Balance b/d	2,400	IIIrd year	Profit & Loss Balance c/d	1,200 1,200
		2,400			**2,400**
IVth year	Balance b/d	1,200	IVth year	Profit & Loss Balance c/d	800 400
		1,200			**1,200**
Vth year	Balance b/d	400	Vth year	Profit & Loss	400
		400			**400**

Workings Notes:

Total discount on the issue of debentures

Amount of discount to be written-off is determined as follows:

Year	Amount	Ratio	Amount (Rs.)
1	1,00,000	5	$\frac{5}{15}$ 6,000 = 2,000
2	80,000	4	$\frac{4}{15}$ 6,000 = 1,600
3	60,000	3	$\frac{3}{15}$ 6,000 = 1,200
4	40,000	2	$\frac{2}{15}$ 6,000 = 800
5	20,000	1	$\frac{1}{15}$ 6,000 = 400

Test your Understanding – I

State whether the following statements are True (T) or False (F):

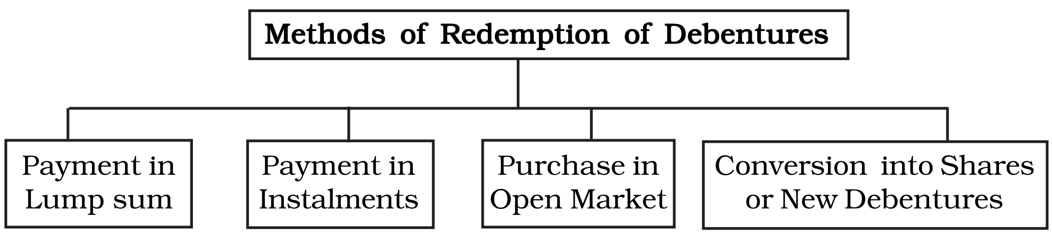
1. Debenture is written instrument acknowledging a debt under the common seal of the company.
2. Debenture is a part of owned capital.
3. The payment of interest on debentures is a charge on the profits of the company.
4. The debentures cannot be issued at a discount of more than 10% of the face value.
5. Redeemable debentures are those debentures, which are payable on the expiry of the specific period.
6. Perpetual debentures are also known as irredeemable debentures.
7. Debentures cannot be converted into shares.
8. Debentures cannot be issued at a premium.
9. A collateral security is a subsidiary security.
10. Debentures cannot be issued at a premium and redeemable at par.
11. Loss on issue of debentures account is a revenue loss.
12. Premium on redemption of debentures account is shown under the 'Securities Premium' in the balance sheet.

SECTION II

2.11 Redemption of Debentures

Redemption of debentures refers to extinguishing or discharging the liability on account of debentures in accordance with the terms of issue. In other words redemption of debentures means repayment of the amount of debentures by the company. There are four ways by which the debentures can be redeemed. These are :

1. Payment in lump sum
2. Payment in instalments
3. Purchase in the open market
4. By conversion into shares or new debentures.



Payment in lump sum : The company redeems the debentures by paying the amount in lump sum to the debentureholders at the maturity thereof as per terms of issue .

Payment in instalments **:** Under this method, normally redemption of debentures is made in instalments on the specified date during the tenure of the debentures. The total amount of debenture liability is divided by the number of years. It is to last and the actual debentures redeemable are identified by means of drawing the requisite number of lots from out of the debentures outstanding for payment.

Purchase in open market: When a company purchases its own debentures for the purposes of cancellation, such an act of purchasing and cancelling the debentures constitutes redemption of debentures by purchase in the open market.

Conversion into shares or new debentures : A company can redeem its debentures by converting them into shares or new class of debentures. If debentureholders find that the offer is beneficial to them, they can exercise their right of converting their debentures into shares or new class of debentures. These new shares or debentures can be issued at par, at a discount or at a premium. It should be noted that only the actual proceeds of debentures are to be taken into account for ascertaining the number of shares to be issued in lieu of the debentures to be converted. If debentures were originally issued at discount, the actual amount realised from them at the time of issue would be used as the basis for computing the actual number of shares to be issued. It may be noted that this method is applicable only to convertible debentures.

2.12 Redemption by Payment in Lump Sum

When the company pays the whole amount in lump sum, the following, journal entries are recorded in the books of the company:

1. *If debentures are to be redeemed at par*

(a) Debentures A/c Dr.
    To Debentureholders

(b) Debentureholders Dr.
    To Bank A/c

2. *If debentures are to be redeemed at premium*

(a) Debentures A/c Dr.
    Premium on Redemption of Debentures A/c Dr.
    To Debentureholders

(b) Debentureholders Dr.
    To Bank A/c

Illustration 19

Give the necessary journal entries at time of redemption of debentures in each of the following cases.

1. X Ltd. issued 5,000, 9% debentures of Rs.100 each at par and redeemable at par at the end of 5 years out of capital.
2. X Ltd. issued 1,000, 12% debentures of Rs.100 each at par. These debentures are redeemable at 10% premium at the end of 4 years.
3. X Ltd. issued 12% debentures of the total face value of Rs.1,00,000 at premium of 5% to be redeemed at par at the end of 4 years.
4. X Ltd. issued Rs.1,00,000, 12% debentures at a discount of 5% but redeemable at a premium of 5% at the end of 5 years.

Solution:

Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
1.	9% Debentures A/c	Dr.		5,00,000	
	To Debentureholders A/c				5,00,000
	(Amount due on redemption debentures)				
	Debentureholders A/c	Dr.		5,00,000	
	To Bank A/c				5,00,000
	(Payment made to debentureholders)				
2.	12% Debentures A/c	Dr.		1,00,000	
	Premium on Redemption of Debentures A/c	Dr.		10,000	
	To Debentureholders				1,10,000
	(Amount due on redemption of debentures)				
	Debentureholders A/c	Dr.		1,10,000	
	To Bank A/c				1,10,000
	(Payment made to debentureholders)				
3.	12% Debentures A/c	Dr.		1,00,000	
	To Debentureholders A/c				1,00,000
	(Amount due on redemption)				
	Debentureholders A/c	Dr.		1,00,000	
	To Bank A/c				1,00,000
	(Payment made to debentureholders)				
4.	12% Debentures A/c	Dr.		1,00,000	
	Premium on Redemption of Debentures A/c	Dr.		5,000	
	To Debentureholders A/c				1,05,000
	(Amount due on redemption of debentures)				
	Debentureholders A/c	Dr.		1,05,000	
	To Bank A/c				1,05,000
	(Payment made to debentureholders)				

As per the provisions of the Companies Act 1956, the company must set aside a portion of profits every year and transfer it to Debenture Redemption Reserve for redemption of debentures until the debentures are redeemed. The journal entry recorded for the purpose is as follows :

As per provisions of - Section 117C of the Companies Act, 1956 (as ameded in 2000).

(a) Where a company issued debentures after the commencement of this Act, it shall create a Debenture Redemption Reserve for the redemption of such debentures, to which adequate amount shall be credited, from out of its profit every year until such debentures are redeemed.

(b) The amount credited to the Debenture Redemption Reserve shall not be utilised by the company except for the purpose of redemption of debentures.

SEBI's Guidelines

Securities and Exchange Board of India (SEBI) has issued guidelines for redemption of debentures. The salient points of these guidelines are:

1. Every company shall create Debenture Redemption Reserve in case of issue of debenture redeemable after a period of more than 18 months from the date of issue.
2. The creation of Debenture Redemption Reserve is obligatory only for non-convertible debentures and non-convertible portion of partly convertible debentures.
3. A company shall create Debenture Redemption Reserve equivalent to at least 50% of the amount of debenture issue before starting the redemption of debenture.
4. Withdrawal from Debenture Redemption Reserve is permissible only after 10% of the debenture liability has already been reduced by the company.

SEBI guidelines would not apply under the following situations:

(a) Infrastructure company (a company wholly engaged in the business of developing, maintaining and operating infrastructure facilities); and

(b) A company issuing debentures with a maturity period of not more than 18 months.

2.12.1 Clarifications regarding creation of Debenture Redemption Reserve

The Department of Company Affairs, Government of India, vide their circular No.9/2002, dated 18.04.2002 has issued the following clarifications regarding creation of Debenture Redemption Reserve (DRR):

(a) No DRR is required for debentures issued by All India Financial Institutions, regulated by RBI and Banking Companies for both public as well as privately placed debentures.

(b) No DRR is required in case of privately placed debentures.

(c) Section 117C apply to debentures issued and pending to be redeemed and, therefore, DRR will also be created for debentures issued prior to 13.12.2000 and pending redemption.

(d) Section 117C will apply to non-convertible portion of debentures issued whether they are fully or partly paid.

The Debenture Redemption Reserve account appears on the liability side of the Balance sheet under the head "Reserves and Surpluses." When the debentures are redeemed, the requisite amount of Debenture Redemption Reserve is transferred to General Reserve.

Illustration 20

XYZ Ltd. issued 200, 15% debentures of Rs.100 each on January 01, 2002 at discount of 10% redeemable at premium of 10% out of profits. Give journal entries at the time of issue and redemption of debentures if debentures are to be redeemed in lump sum at the end of 4^{th} year. The directors decided to transfer the minimum amount to Debenture Redemption Reserve on 31December, 2002.

Solution:

Books of XYZ Ltd.
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
2002 Jan.01	Bank A/c Dr.		18,000	
	Loss on Issue of Debenture A/c Dr.		4,000	
	To 15% Debentures A/c			20,000
	To Premium on Redemption of Debenture A/c			2,000
	(Issue of debentures at 10% discount and redeemable at 10% premium)			
Dec.31	Statement of profit and loss Dr.		10,000	
	To Debenture Redemption Reserve A/c			10,000
	(Transfer of profits to DRR as per Section 117(C) and SEBI)			

2004 Dec.31	15% Debentures A/c	Dr.		20,000	
	Debenture Redemption Premium A/c	Dr.		2,000	
	To Debentureholders A/c				22,000
	(Amount due on redemption)				
	Debentureholders A/c	Dr.		22,000	
	To Bank A/c				22,000
	(Amount paid to debentures holders)				
	Debenture Redemption Reserve A/c	Dr.		10,000	
	To General Reserve A/c				10,000
	(Transfer of DRR to General Reserve after total redemption)				

It may be noted that when Debenture Redemption Reserve is created, redemption of debentures is termed as redemption out of profits. Otherwise, it is treated as redemption out of capital.

2.12.2 Redemption by Payment in Instalments

When, as per terms of the issue, the debentures are to be redeemed in instalments beginning from a particular year, the actual debentures to be redeemed are selected usually by draw of lots, and the redemption to be made either out of profits or out of capital. The entries will be:

1. *If redeemed out of profits*

   (a) Statement of profit and loss Dr.
   To Debenture Redemption Reserve A/c

   (b) Debentures A/c Dr.
   To Debentureholders

   (c) Debentureholders Dr.
   To Bank A/c

2. *If redeemed out of capital*

   (a) Debentures A/c Dr.
   To Debentureholders

   (b) Debentureholders Dr.
   To Bank A/c

Illustration 21

ABC Ltd. issued 3,000, 14% Debentures of Rs. 100 each at a discount of 5% on January 1, 2012. Interest on these debentures is payable annually on December 31st each year. The debentures are redeemable at partin three equal instalments at the end of the third, fourth and fifth year. Prepare 14% Debentures Account, Discount on Issue of Debentures Account and Debenture Interest Account in the books of the company.

Solution:

14% Debentures Account

Dr. *Cr.*

Date	*Particulars*	*J.F.*	*Amount (Rs.)*	*Date*	*Particulars*	*J.F.*	*Amount (Rs.)*
2012				2012			
Dec.31	Balance c/d		3,00,000	Jan.01	Debenture Application A/c		2,85,000
				Dec.31	Discount on Issue of Debentures A/c		15,000
			3,00,000				**3,00,000**
2013				2013			
Dec.31	Balance c/d		3,00,000	Jan.01	Balance b/d		3,00,000
			3,00,000				**3,00,000**
2014				2014			
Dec.31	Bank A/c		1,00,000	Jan.01	Balance b/d		3,00,000
Dec.31	Balance c/d		2,00,000				
			3,00,000				**3,00,000**
2015				2015			
Dec.31	Bank A/c		1,00,000	Jan.01	Balance b/d		2,00,000
Dec.31	Balance c/d		1,00,000				
			2,00,000				**2,00,000**
2016				2016			
Dec.31	Balance c/d		1,00,000	Jan.01	Balance b/d		1,00,000
			1,00,000				**1,00,000**

Debentures Interest Account

Dr. *Cr.*

Date	*Particulars*	*J.F.*	*Amount (Rs.)*	*Date*	*Particulars*	*J.F.*	*Amount (Rs.)*
2012				2012			
Dec.31	Bank		**42,000**	Dec.31	Profit and Loss		**42,000**

2013 Dec.31	Bank		**42,000**	2013 Dec.31	Profit and Loss		**42,000**
2014 Dec.31	Bank		**42,000**	2014 Dec.31	Profit and Loss		**42,000**
2015 Dec.31	Bank		**28,000**	2015 Dec.31	Profit and Loss		**28,000**
2016 Dec.31	Bank		**14,000**	2016 Dec. 31	Profit and Loss		**14,000**

Discount on Issue Debentures Account

Dr. *Cr.*

Date	*Particulars*	*J.F.*	*Amount (Rs.)*	*Date*	*Particulars*	*J.F.*	*Amount (Rs.)*
2012 Jan.01	Balance c/d		15,000	2012 Dec.31	Profit and Loss		3,750
				Dec.31	Balance c/d		11,250
			15,000				**15,000**
2013 Jan.01	Balance c/d		11,250	2013 Dec. 31	Profit and Loss		3,750
				Dec. 31	Balance c/d		7,500
			11,250				**11,250**
2014 Jan.01	Balance c/d		7,500	2014 Dec. 31	Profit and Loss		3,750
				Dec. 31	Balance c/d		3,750
			7,500				**7,500**
2015 Jan.01	Balance c/d		3,750	2015 Dec. 31	Profit and Loss		2,500
				Dec. 31	Balance c/d		1,250
			3,750				**3,750**
2016 Jan.01	Balance c/d		1,250	2016 Dec. 31	Profit and Loss		1,250
			1,250				**1,250**

Working Notes:

1. Debenture interest is calculated @ 14% on the amount of debentures outstanding in the beginning of each year. The amount of debentures outstanding on January 1, each year is:

December,

	Debenture Outstanding Rs.
Beginning of 2012	3,00,000
Beginning of 2013	3,00,000
Beginning of 2014	3,00,000
Beginning of 2015	2,00,000
Beginning of 2016	1,00,000

2. Discount on Issue of Debentures is written-off in the ratio of the amount of debentures outstanding in the beginning of each year. The ratio is 3:3:3:2:1. So amount of discount to be written-off will be

Year		*Amount Rs.*
2012	Rs. 15,000 $\times \frac{3}{12}$	3,750
2013	Rs. 15,000 $\times \frac{3}{12}$	3,750
2014	Rs. 15,000 $\times \frac{3}{12}$	3,750
2015	Rs. 15,000 $\times \frac{2}{12}$	2,500
2016	Rs. 15,000 $\times \frac{1}{12}$	1,250

It may be noted that the company will also have to transfer every year an amount equal to the nominal value of debentures redeemed and at the end of fifth year (31.12.2006), the same shall be transfered to general reserve.

2.13 Redemption by Purchase in Open Market

When a company purchases its own debentures in the open market for the purpose of immediate cancellation, the purchase and cancellation of such debentures are termed as redemption by purchase in the open market. The advantage of such an option is that a company can redeem the debentures at its convenience whenever it has surplus funds. Secondly, the company can purchase them when they are available in market at a discount.

When the debentures are purchased from the market at a discount and cancelled, the journal entries are recorded as follows :

1. *On purchase of our debentures for immediate cancellation*

   Debentures A/c Dr.

   To Bank A/c

   To Profit on Redemption of Debentures A/c

2. *On transfer of Profit on Redemption*

   Profit on Redemption of Debenture A/c Dr.

   To Capital Reserve

In case, the debentures are purchased from the market at a price which is above the nominal value of debenture, the excess will be debited to loss on redemption of debentures. The journal entry in that case will be

1.	Debentures A/c	Dr.
	Loss on Redemption of Debentures A/c	Dr.
	To Bank A/c	
2.	Statement of profit and loss	Dr.
	To Loss on Redemption of Debentures A/c	

Illustration 22

X Ltd. purchased its own debentures of Rs. 100 each of the face value of Rs. 20,000 from the open market for cancellation at Rs.92. Record necessary journal entries.

Solution:

Books of X Limited
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	Debentures A/c Dr.		20,000	
	To Bank A/c			18,400
	To Profit on Redemption of Debentures A/c			1,600
	(Own debentures purchased at Rs.92 from the market)			
	Profit on Redemption of Debenture A/c Dr.		1,600	
	To Capital Reserve			1,600
	(Transfer of profit on cancellation of debentures to capital reserve)			
	Statement of profit and loss Dr.		20,000	
	To Debenture Redemption Reserve A/c			20,000
	(Transfer of profits to Debenture Redemption Reserve)			

Illustration 23

X Ltd. decided to redeem Rs. 25,000, 12% debentures. It purchased Rs.20,000 debentures in the open market at Rs.98.50 each, the expenses being Rs.100, and redeemed the balance of Rs.5,000 debentures by draw of lots. Journalise.

Solution:

Books of X Ltd.
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	12% Debentures A/c	Dr.		20,000	
	To Bank A/c				19,800
	To Profit on Redemption of Debentures A/c				200
	(Purchase of 200 debentures @ Rs.98.50 plus Rs.100 for expenses)				
	12% Debentures A/c	Dr.		5,000	
	To Bank A/c				5,000
	(Redemption of Rs.5,000 debentures)				
	Profit on Redemption of Debenture A/c	Dr.		200	
	To Capital Reserve				200
	(Transfer of profits on Redemption of debentures to Capital Reserve A/c)				
	Statement of profit and loss	Dr.		25,000	
	To Debenture Redemption Reserve A/c				25,000
	(Transfer of profit to Debenture Redemption Reserve)				

Note : The balance of Debenture Redemption Reserve has not been transferred to general reserve under the assumption that the company still has debt liability to be redeemed in future.

Illustration 24

On January 01, 2012, a company made an issue of 1,000, 6% debentures of Rs.1,000 each at Rs.960 per debenture. The terms of issue provided for the redemption of 200 debentures every year starting from the end of 2013 either by purchase or by draw of lot at par at the company's option. Rs.10,000 was written-off the debenture discount account in years 2012 and 2013. On 31.12.2013, the company purchased for cancellation debentures of the face value of Rs.80,000 at Rs.950 per debenture and of the face value of Rs.1,20,000 at Rs.900 per debenture.

Journalise the above transaction and show the profit on redemption would be treated.

Solution:

Date	Particulars	L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
2012 Jan.01	Bank A/c Dr.		9.60,000	
	To 6% Debentures Application & Allotment A/c			9,60,000
	(Debentures application money received)			
	6% Debenture Application & Allotment A/c Dr.		9,60,000	
	Discount on Issue of Debentures A/c Dr.		40,000	
	To 6% Debentures A/c			10,00,000
	(Debentures application money transferred to Debentures A/c)			
Dec.31	Statement of profit and loss Dr.		10,000	
	To Discount on Issue of Debenture A/c			10,000
	(Discount on issue of debentures written-off)			
2013 Dec.31	6% Debentures A/c Dr.		80,000	
	To Bank A/c			76,000
	To Profit on Redemption of Debenture A/c			4,000
	(Redemption of 80 debentures by purchasing @ Rs.950 per debenture)			
Dec.31	6% Debentures A/c Dr.		1,20,000	
	To Bank A/c			1,08,000
	To Profit on Redemption of Debentures A/c			12,000
	(Redemption of 120 debentures @ Rs.900 by purchasing in open market)			
Dec.31	Profit on Redemption of Debentures A/c Dr.		16,000	
	To Capital Reserve A/c			16,000
	(Transfer of profits on cancellation of debentures to Capital Reserve A/c)			
Dec.31	Statement of profit and loss Dr.		2,00,000	
	To Debenture Redemption Reserve A/c			2,00,000
	(Transfer of profit to Debenture Redemption Reserve)			
Dec.31	Statement of profit and loss Dr.		10,000	
	To Discount on Issue of Debentures A/c			10,000
	(Discount on debentures written-off)			

2.14 Redemption by Conversion

As stated earlier the debentures can also be redeemed by converting them into shares or new debentures. If debentureholders find that the offer is beneficial to them, they will take advantage of this offer. The new shares or debentures may be issued at par, at a discount or at a premium. It may be noted that no Debenture Redemption Reserve is required in case of convertible debentures because no funds are required for redemption.

Illustration 25

Arjun Plastics Limited redeemed 1,000, 15% debentures of Rs.100 each by converting them into equity shares of Rs.10 each at a premium of Rs.2.50 per share. The company also redeemed 500 debentures by utilising Rs.50,000 out of profit. Give the necessary journal entries.

Solution:

Books of Arjun Plastic Limted
Journal

Date	*Particulars*	*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
	15% Debentures A/c Dr.		1,00,000	
	To Debentureholders			1,00,000
	(Amount due to debentureholders)			
	Debentureholders A/c Dr.		1,00,000	
	To Equity Shares Capital A/c			80,000
	To Securities Premium A/c			20,000
	(Issue of 800 equity shares at a premium of Rs.2.50 per share)			
	Debentures A/c Dr.		50,000	
	To Debentureholders A/c			50,000
	(Amount due to debentureholders)			
	Debentureholders Dr.		50,000	
	To Bank A/c			50,000
	(Payment to debentureholders)			
	Statement of profit and loss Dr.		50,000	
	To Debenture Redemption Reserve A/c			50,000
	(Transfer of profit to Debenture Redemption Reserve)			

2.15 Sinking Fund Method

Sufficient funds are required to redeem debentures at the end of a specified period. To meet this requirement, the company may decide to create a sinking fund and invest adequate amount in marketable securities or bonds of other business entities. Normally, a company ensures that an equal amount is set aside every year to arrange the necessary funds at the time of redemption. This is called Sinking Fund method according to while the company makes necessary arrangements is sets aside a part of divisible profit every year and invest the same outside the business in marketable securities. An appropriate amount is calculated by referring to on Sinking Fund Table depending upon the rate of return on investments and the number of years for which investments are made. The amount thus ascertained is transferred from profits every year to Debenture Redemption Fund and its investment is termed as Debenture Redemption Fund Investment. These investment earn certain amount of income (call it interest) which is reinvested together with the fixed appropriated amount for the purpose in subsequent years. In last year, the interest earned and the appropriated fixed amount are not invested. In fact, at this stage the Debenture Redemption Fund Investments are encashed and the amount so obtained is used for the redemption of debentures. Any profit or loss made on the encashment of Debenture Redemption Fund investments is also transferred to Debenture Redemption Fund Account. The creation of Debenture Redemption Fund Account serves the purpose of Debenture Redemption Reserve as required by law and the SEBI guidelines, and is, after redemption is transferred to general reserve.

Thus, the steps involved in the working of Sinking Fund method are :

1. Calculate the amount of profit to be set-aside annually with the help of sinking fund table.
2. Set aside the amount of profit at the end of each year and credit to Debenture Redemption Fund (DRF) Account.
3. Purchase the investments of the equivalent amount at the end of first year and debit Debenture Redemption Fund Investment (DRFI) Account.
4. Receive interest on investment at the end of each subsequent year.
5. Purchase the investments equivalent to the fixed amount of profit set aside and the interest earned every year except last year (year of redemption).
6. Receive interest on investment for the last year.
7. Set aside the fixed amount of profit for the last year.
8. Encash the investments at the end of the year of redemption.

9. Transfer the profit/loss on sale of investments reflected in the balance of Debenture Redemption Fund Investment Account to Debenture Redemption Fund Account.
10. Make payment to debentureholders.
11. Transfer Debenture Redemption Fund A/c balance to General Reserve.

The sinking fund method is used for redemption of debentures by payment in lump sum on maturity, and the journal passed from year to year are as follows.

1. *At the end of First Year*

(a) For setting aside the fixed amount of profit for redemption

Statement of profit and loss Dr.
To Debenture Redemption Fund A/c

(b) For investing the amount set aside for redemption

Debenture Redemption Fund Investment A/c Dr.
To Bank A/c

2. *At the end of second year and subsequent years other than last year*

(a) For receipt of interest on Debenture Redemption Fund Investments

Bank A/c Dr.
To Interest on Debenture Redemption Fund Investment A/c

(b) For transfer of Interest on Debenture Redemption Fund Investment to Debenture Redemption Fund Account

Interest on Debenture Redemption Fund Investment A/c Dr.
To Debenture Redemption Fund A/c

(c) For setting aside the fixed amount of profit for redemption

Statement of profit and loss Dr.
To Debenture Redemption Fund A/c

(d) For investments of the amount set aside for redemption and the interest earned on DRFI

Debenture Redemption Fund Investment A/c Dr.
To Bank A/c

3. *At the end of last year*

(a) For receipt of interest
Bank A/c Dr.
To Interest on Debenture Redemption
Fund Investment A/c

(b) For transfer of interest on Debenture Redemption Fund Investment to Debenture Redemption Fund Investment A/c
Interest on Debenture Redemption Fund Investment A/c Dr.
To Debenture Redemption Fund A/c

(c) For setting aside the fixed amount of profit for redemption
Statement profit and loss Dr.
To Debenture Redemption Fund A/c

(d) For encashment of Debenture Redemption Fund Investments
Bank A/c Dr.
To Debenture Redemption Fund Investment A/c

(e) For the transfer of profit/loss on realisation of Debenture Redemption Fund Investments
In case of Profit
Debenture Redemption Fund Investment A/c Dr.
To Debenture Redemption Fund A/c
In case of Loss
Debenture Redemption Fund A/c Dr.
To Debenture Redemption Fund Investment A/c

(f) For amount due to debentureholders on redemption
Debenture A/c Dr.
To Debentureholders A/c

(g) For payment to debentureholders
Debentureholders A/c Dr.
To Bank A/c

(h) For transfer of Debenture Redemption Fund Account balance to General Reserve
Debenture Redemption Fund A/c Dr.
To General Reserve A/c

Illustration 26

X Ltd. issued Rs.10,00,000 debentures on January 01, 2011. These were to be redeemed on December 31, 2013. For this purpose, the company established a sinking fund. The investments were expected to earn interest @ 5% p.a. Sinking fund table shows that Rs.0.317208 invested annually at 5% amount to Re.1 in 3 years. On December 31, 2013, the bank balance was Rs.4,20,000 before receipt of interest on Sinking Fund Investments. On that date, the investments were sold for Rs.6,56,000.

Calculate the interest to nearest rupee and investments be made to the nearest of Rs.100. Record necessary journal entries. Show Debentures Account. Debenture Redemption Fund Account and Debenture Redemption Fund Investment Account in the books of the company. Ignore entries for interest on debentures.

Solution:

Books of X Ltd.
Journal

Date	*Particulars*		*L.F.*	*Debit Amount (Rs.)*	*Credit Amount (Rs.)*
2011					
Jan.1,	Bank A/c	Dr.		10,00,000	
	To Debentures A/c				10,00,000
	(Issue of debentures of Rs.10,00,000)				
Dec.31,	Statement of profit and loss	Dr.		3,17,208	
	To Debenture Redemption Fund A/c				3,17,208
	(Annual instalment for redemption debited to statement of profit and loss)				
	Debenture Redemption Fund Investments A/c	Dr.		3,17,200	
	To Bank A/c				3,17,200
	(Investment purchased)				
2012					
Dec.31,	Bank A/c	Dr.		15,860	
	To Interest on DRFI A/c				15,860
	(Interest received @ 5% on investment)				
	Interest on DRFI A/c	Dr.		15,860	
	To Debenture Redemption Fund Investment A/c				15,860
	(Interest on DRFI transferred to Debenture Redemption Fund)				

	Statement of profit and loss Dr. To Debenture Redemption Fund A/c (Annual instalment debited to Profit and Loss Appropriation Account)		3,17,208	3,17,208
	Debenture Redemption Fund Investment A/c Dr. To Bank A/c (Investment purchased for annual instalment plus interest)		3,33,100	3,33,100
2013 Dec.31,	Bank A/c Dr. To Interest on DRFI A/c (Interest received @ 5% on investment)		32,516	32,516
	Interest on DRFI A/c Dr. To Debenture Redemption Fund A/c (Interest on DRFI transferred to Debenture Redemption Fund)		32,516	32,516
	Statement of profit and loss Dr. To Debenture Redemption Fund A/c (Annual instalment debited to Profit & Loss Appropriation Account)		3,17,208	3,17,208
	Bank A/c Dr. To Debenture Redemption Fund Investment A/c (Sale proceeds of DRFI)		6,56,000	6,56,000
	Debenture Redemption Fund Investment A/c Dr. To Debenture Redemption Fund A/c (Transfer of profit on sale of investments to Debenture Redemption Fund)		5,700	5,700
	Debentures A/c Dr. To Debenturesholders A/c (Debentures amount transferred to debentureholders)		10,00,000	10,00,000
	Debenturesholders A/c Dr. To Bank A/c (Debentures holders paid the money)		10,00,000	10,00,000

	Debenture Redemption Fund A/c Dr.		10,05,700	
	To General Reserve A/c			10,05,700
	(Transfer of credit balance of Debenture Redemption Fund General Reserve)			

Debentures Account

Dr. Cr.

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2011 Dec.31	Balance c/d		10,00,000	2011 Jan.01	Bank		10,00,000
			10,00,000				**10,00,000**
2012 Dec.31	Balance c/d		10,00,000	2012 Jan.01	Balance b/d		10,00,000
			10,00,000				**10,00,000**
2013 Dec.31	Bank		10,00,000	2013 Jan.01	Balance b/d		10,00,000
			10,00,000				**10,00,000**

Debentures Redemption Fund Account

Dr. Cr.

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2011 Dec.31	Balance c/d		3,17,208	2011 Jan.01	Statement of profit and loss		3,17,208
			3,17,208				**3,17,208**
2012 Dec.31	Balance c/d		6,50,276	2012 Jan.01	Balance b/d		3,17,208
					Interest on DRFI		15,860
					Statement of profit and loss		3,17,208
			6,50,276				**6,50,276**

2013 Dec.31	General Reserve		10,05,700	2013 Jan.01	Balance b/d		6,50,276
					Interest on DRFI		32,516
					Profit & Loss Appropriation		3,17,208
					DRFI		5,700
			10,05,700				**10,05,700**

Debenture Redemption Fund Investment Account

Dr. *Cr.*

Date	*Particulars*	*J.F.*	*Amount (Rs.)*	*Date*	*Particulars*	*J.F.*	*Amount (Rs.)*
2011 Dec.31	Bank		3,17,200	2011 Jan.01	Bank		3,17,200
			3,17,200				**3,17,200**
2012 Dec.31	Balance b/d		3,17,200	2012 Jan.01	Balance c/d		6,50,300
	Bank		3,33,100				
			6,50,300				**6,50,300**
2013 Dec.31	Balance b/d		6,50,300	2013 Jan.01	Bank (Sale Proceeds)		6,56,000
	DRF		5,700				
			6,56,000				**6,56,000**

Bank Account

Date	*Particulars*	*J.F.*	*Amount (Rs.)*	*Date*	*Particulars*	*J.F.*	*Amount (Rs.)*
2013 Dec.31	Balance b/d		4,20,000	2013 Dec.31	Debenture		10,00,000
	DRF		6,56,000		Balance c/d		76,000
			10,76,000				**10,76,000**
2014 Jan.1	Balance b/d		76,000				

Note : The annual instalment of profit to be set aside for redemption has been worked out as 0.317208 $\times$ 10,00,000 = Rs. 3,17,208.

Illustration 27

The balance sheet of XYZ Ltd. disclosed the following information as on December, 31 2011.

	Rs.
15% debentures	15,00,000
Debenture Redemption Fund	11,63,600
Debenture Redemption Fund Investment (10% Govt. Securities)	11,63,600

The contribution to Debenture Redemption Fund was Rs. 1,30,800 p.a. for the year 2012 and 2013. Debentures are due for payment on December 31, 2013. Prepare the above accounts in the books of company assuming that securities were realised on December 31, 2013 for a sum of Rs.13,52,000 and interest on securities on December 31, was immediately invested.

Solution:

Debentures Account

Dr. *Cr.*

Date	*Particulars*	*J.F.*	*Amount (Rs.)*	*Date*	*Particulars*	*J.F.*	*Amount (Rs.)*
2012 Dec.31	Balance c/d		15,00,000	2012 Jan.01	Balance b/d		15,00,000
			15,00,000				**15,00,000**
2013 Dec.31	Bank		15,00,000	2013 Jan.01	Balance b/d		15,00,000
			15,00,000				**15,00,000**

Debentures Redemption Fund Account

Dr. *Cr.*

Date	*Particulars*	*J.F.*	*Amount (Rs.)*	*Date*	*Particulars*	*J.F.*	*Amount (Rs.)*
2012 Dec.31	Balance c/d		14,10,760	2012 Jan.01	Balance b/d		11,63,600
					Interest on DRFI		1,16,360
				Dec.31	Statement of profit and loss		1,30,800
			14,10,760				**14,10,760**
2013 Dec.31	Sinking Fund Investment		58,760	2013 Jan.01	Balance b/d		14,10,760
	General Reserve		16,23,876	Dec.31	Interest on DRFI		1,41,076
					Statement of profit and loss		1,30,800
			16,82,636				**16,82,636**

Debenture Redemption Fund Investment Account

Dr. Cr.

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2012				2012			
Jan.01	Balance b/d		11,63,600	Dec.31	Balance c/d		14,10,760
Dec.31	Bank		2,47,160*				
			14,10,760				**14,10,760**
2013				2013			
Jan.01	Balance b/d		14,10,760	Dec.31	Bank		13,52,000
					Debenture Redemption Reserve		58,760
			14,10,760				**14,10,760**

* (Interest + Instalment = Rs. 1,16,360 + Rs. 1,30,800 = Rs. 2,47,160)

Illustration 28

LCM Ltd. purchased for cancellation its own 10,00,000, 9% Debentures of Rs.500 each at Rs.480 each. Record necessary journal entries.

Solution:

Books of LCM Ltd.
Journal

Date	Particulars	L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
	Own Debentures A/c Dr.		48,00,00,000	
	To Bank A/c			48,00,00,000
	(Purchased its own debentures @ Rs. 480 each)			
	9% Debenture A/c Dr.		50,00,00,000	
	To Own Debenture			48,00,00,000
	To Profit on cancellation of debentures A/c			2,00,00,000
	(Own debenture purchased being cancelled)			
	Profit on cancellation of debentures A/c Dr.		2,00,00,000	
	To Capital Reserve			2,00,00,000
	(Profits on cancellation of debentures transferred to capital reserve)			

Illustration 29

The following balances appeared in the books of Madhu Ltd. as on April 01, 2011:

	(Rs.)
12% Debentures	1,50,000
Debenture Redemption Fund	1,25,000
Debenture Redemption Fund Investments	1,25,000

The Debenture Redemption Fund Investments were represented by Rs.1,30,000, 9% Govt. Securities.

The annual instalment added to the fund was Rs.20,600. On March, 31st 2012, the bank balance before the receipt of interest on investments was Rs.40,000. On the date, all the investments were sold at 84% and the debentures were duly redeemed.

Prepare Debentures Account, Debenture Redemption Fund Account, Debenture Redemption Fund Investment Account and Bank Account for 2011-2012. The company closes its books on March 31, every year.

Solution:

Books of Madhu Ltd.
Debenture Redemption Fund Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
				2011 April 1	Balance b/d		1,25,000
2012 Mar.31	Debenture Redemption Fund Investment (Loss on Sale)		15,800	2012 Mar.31	Interest on Debenture Redemption Fund Investment A/c (9% on Rs.1,30,000)		11,700
	General Reserve (Transfer)		1,41,500		Statement of profit and loss		20,600
			1,57,300				**1,57,300**

Debenture Redemption Fund Investment Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2012 April,01	Balance b/d (Face value Rs. 1,30,000)		1,25,000	2011 Mar.31	Bank (84% of Rs. 1,30,000)		1,09,200
					Loss transferred to Debenture Redemption Fund		15,800
			1,25,000				**1,25,000**

Bank Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2012 Mar.31	Balance b/d		40,000	2011 Mar.31	Debenture		1,50,000
	Interest on Investment		11,700		Balance c/d		10,900
	Debenture Redemption Fund Investment (Sales Proceeds)		1,09,200				
			1,60,900				**1,60,900**

12% Debentures Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2012 Mar.31	Bank A/c		1,50,000	2011 April 31	Balance b/d		1,50,000
			1,50,000				**1,50,000**

Working Notes :

1. Interest on Debenture Redemption Fund Investments of 1,30,000 at 9% will be Rs.11,700.
2. Investments realised at 84%. Hence, the investments of Rs.1,30,000 will realise Rs.1,09,200.

Test your Understanding - II

Select the correct answer for the following multiple choice questions:

1. Debentures which are transferable by mere delivery are:
   (a) Registered debentures, (b) First debentures,
   (c) Bearer debentures.
2. The following journal entry appears in the books of X Co. Ltd.

Bank a/c	Dr.	4,75,000	
Loss on issue of debenture a/c	Dr.	75,000	
To 12% Debentures a/c			5,00,000
To Premium on Redemption of Debenture A/c			50,000

   Debentures have been issued at a discount of:
   (a) 15%, (b) 5%, (c) 10%.

3. X Co. Ltd. purchased assets worth Rs.28,80,000. It issued debentures of Rs.100 each at a discount of 4 per cent in full satisfaction of the purchase consideration. The number of debentures issued to vendor is:
   (a) 30,000, (b) 28,800, (c) 32,000.
4. Convertible debentures cannot be issued at a discount if:
   (a) They are to be immediately converted,
   (b) They are not to be immediately converted,
   (c) None of the above.
5. Discount on issue of debentures is shown under the following head in the Balance Sheet:
   (a) Statement of profit and loss,
   (b) Reserves and surplus,
   (c) Debentures account.
6. When debentures are issued at par and are redeemable at a premium, the loss on such an issues debited to :
   (a) Statement of profit and loss,
   (b) Debentures applications and allotment account,
   (c) Loss on issue of debentures account.
7. Excess value of net assets over purchase consideration at the time of purchase of business is credited to :
   (a) General reserve,
   (b) Capital reserve,
   (c) Vendors' account.
8. When all the debentures are redeemed, balance in the debentures redemption fund account is transferred to :
   (a) Capital reserve,
   (b) General reserve,
   (c) Statement of profits and loss.
9. The nominal and book values of debenture redemption fund investments account are respectively Rs.1,00,000 and Rs.96,000. The company sold investments of nominal value of Rs.30,000 at a price which was just sufficient to redeem debentures of Rs.30,000 at 10% premium, the profit on sale of investment is :
   (a) Rs.4,200, (b) Rs.3,000, (c) Rs. Nil.
10. Own debentures are those debentures of the company which:
    (a) The company allots to its own promoters,
    (b) The company allots to its Director,
    (c) The company purchases from the market and keeps them as investments.
11. Profit on cancellation of own debentures is transferred to :
    (a) Statement of profit and loss,
    (b) Debenture redemption reserve,
    (c) Capital reserve.

12. When debentures are redeemed out of profits, an equal amount is transferred to :
    (a) General reserve,
    (b) Debenture redemption reserve,
    (c) Capital reserve.
13. Profit on sale of debenture redemption fund investments in the first instance is credited to :
    (a) Debenture redemption fund account,
    (b) Statement of profit and loss,
    (c) General reserve account.
14. The balance of sinking fund investment account after the realisation of investments is transferred to:
    (a) Statement of Profit and Loss,
    (b) Debentures account,
    (c) Sinking fund account.
15. When debentures are issued at a discount and are redeemable at a premium, which of the following accounts is debited at the time of issue:
    (a) Debentures account,
    (b) Premium on redemption of debentures account,
    (c) Loss on issue of debentures account.

Test your Understanding – III

I. Identify the account to be debited in case of the following transactions.

1. Issue of debentures to a vendor in consideration of the business purchase.
2. Setting aside the amount for creating sinking fund for redemption of debentures.
3. The balance of debenture redemption reserve account after redemption of the debentures.
4. Purchase of own debentures by the company.
5. Writing-off discount on issue of debentures.

II. Identify the account to be credited in case of the following transactions.

6. Debentures issued at a discount and are redeemable at par
7. Transfer of interest on Sinking fund investments to sinking fund account
8. Balance of DRR account after the redemption of Debentures
9. Profit on sale of sinking fund investment account
10. Writing-off the loss on issue of debentures

Do it YourSelf

1. G Ltd. has 800 lakhs, 10% debentures of Rs.100 each due for redemption on March 31, 2003. Assume that Debenture Redemption Reserve has a balance of Rs. 3,40,00,00,000 on that date. Record necessary entries at the time of redemption of debentures.
2. R Ltd. issued 88,00,000, 8% debenture of Rs. 50 each at a premium of 5 % on July 1, 2000 redeemable at par by conversion of debentures into shares of

Rs.20 each at a premium of Rs.2 per share on June 30, 2003. Record necessary entries for redemption of debentures.

3. C Ltd. has outstanding 11,00,000, 10% debentures of Rs.200 each, on April 1, 2003. The Board of Directors have decided to purchase 20% of own debentures for cancellation at Rs.200 each. Record necessary entries for the same.
4. Record necessary journal entries in the books of the Company in following case for redemption of 1,000, 12% Debentures of Rs.10 each issued at par:
   (a) Debentures redeemed at par by conversion into 12% Preference Shares of Rs.100 each,
   (b) Debentures redeemed at a premium of 10% by conversion into Equity Share issued at par,
   (c) Debentures redeemed at a premium of 10% by conversion into Equity Shares issued at a premium of 25%.
5. On 31.1.2005 Janta Ltd. converted its Rs.88,00,000, 6% debentures into equity shares of Rs.20 each at a premium of Rs.2 per share. Record necessary journal entries in the books of the company for redemption of debentures.
6. Anirudh Ltd. has 4,000, 8% debentures of Rs.100 each due for redemption on March 31, 2005. The company has a debenture redemption reserve of Rs.1,50,000 on that date. Assuming that no interest is due record the necessary journal entries at the time of redemption of debentures.

Illustration 30

The following balances appeared in the books of a company on January 01, 2011:

12% Debentures	Rs.4,00,000
12% Debentures Sinking Fund	Rs.3,00,000
12% Debentures Sinking Fund Investment	Rs.3,00,000

(Represented by 10%, Rs.4,00,000 secured Bonds of Govt. of India)

Annual contribution to the sinking fund was Rs.60,000 made on 31st December each year. On December 31st, 2011, balance at bank was Rs.3,00,000 after receipt of interest on Debentures Sinking Fund Investment. The company sold the investment at a loss of 18% and the debentures were paid off. You are required to prepare the following accounts for the year 2011:

(i) Debentures account,
(ii) Debentures sinking fund account,
(iii) Debentures sinking fund investment account,
(iv) Bank account.

Solution:

12% Debentures Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2011 Dec.31	Bank		4,00,000	2011 Jan.01	Balance b/d		4,00,000
			4,00,000				**4,00,000**

12% Debenture Sinking Fund Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2011 Dec.31	General Reserve		4,28,000	2011 Jan.01	Balance b/d		3,00,000
				Dec.31	Statement of profit and loss		60,000
				Dec.31	Interest on Debenture Sinking Fund Investment		40,000
				Dec.31	Debenture Fund Investment		28,000
			4,28,000				**4,28,000**

12% Debenture Sinking Fund Investment Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2011 Jan.01	Balance b/d		3,00,000	2011 Dec.31	Bank		3,28,000
Dec.31	Profit transferred to Debenture Sinking Fund		28,000				
			3,28,000				**3,28,000**

Bank Account

Dr. Cr.

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2011				2011			
Jan.1	Balance b/d (The balance of Rs.3,00,000 includes Rs.40,000, interest @ 10% on Rs.4,00,000 (10% Rs. 4,00,000 Secured Bonds of Govt. of India)		3,00,000	Dec.31	12% Debentures		4,00,000
					Balance c/d		2,28,000
Dec.31	12% Debentures Sinking Fund Investment		3,28,000				
			6,28,000				**6,28,000**

Illustration 31

The following balances stood as on 31.3.2013 in the books of a Company:

12% Debentures		Rs.10,00,000
Debenture Redemption Fund		Rs.10,00,360
Debenture Redemption Fund Investments represented by:		
Rs. 4,00,000	9% Loan	Rs.3,80,000
Rs. 7,00,000	8% Govt. Paper	Rs.6,20,360

On the above date, the investments were sold as follows: 9% loan at par, and 8% Govt. Paper at 90% of nominal value. The Debentures were also redeemed accordingly. Show the necessary ledger accounts.

Solution:

12% Debentures Account

Dr. Cr.

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2013 March 31	Bank		10,00,000	2013 March 31	Balance b/d		10,00,000
			10,00,000				**10,00,000**

Debenture Redemption Fund Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2013 March 31	General Reserve		10,30,000	2013 March 31	balance b/d		10,00,360
					Debenture Redemption Fund Investment		29,640
			10,30,000				**10,30,000**

Debenture Redemption Fund Investment Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2013 March 31	Balance b/d			2013 March 31	Bank (9% Loan)		4,00,000
	9% Loan		3,80,000		Bank (8% Govt.Paper)		6,30,000
	8% Govt.Paper		6,20,360				
	Debenture Redemption Fund		29,640				
			10,30,000				**10,30,000**

Bank Account

Dr. *Cr.*

Date	Particulars	J.F.	Amount (Rs.)	Date	Particulars	J.F.	Amount (Rs.)
2013 March 31	To Debenture Redemption Fund Investment:			2013 March 31	By 12% Debentures		10,00,000
	9% Loan		4,00,000		By Balance c/d		30,000
	8% Govt. Paper		6,30,000				
			10,30,000				**10,30,000**

The Bank Balance has not been given.

Terms Introduced in the Chapter

1. Debenture
2. Bond
3. Mortgaged Debenture
4. Perpetual Debenture
5. Zero Coupon Rate Debenture
6. Specific Coupon Rate Debenture
7. Registered Debenture
8. Bearer Debenture
9. Charge
10. Fixed Charge
11. Floating Charge
12. First Charge
13. Maturity Date
14. Principal
15. Discount/Loss on Issue of Debenture
16. Purchase Consideration
17. Redemption of Debenture
18. Draw of Lots
19. Own Debentures
20. Redemption out of Capital
21. Redemption out of Profits
22. Redemption of Convertible Debenture
23. Debentures Sinking Fund
24. Collateral Security
25. Second Charge
26. Purchase of Debenture from Open Market

Summary

Debenture: Debenture is the acknowledgements of debt. It is a loan capital raised by the company from general public. A person/holder of such a written acknowledgement is called 'debenture-holder'.

Bond: Bond is similar to debenture in terms of contents and texture. The only difference is with respect of issue condition, i.e bonds can be issued without pre-determined rate of interest as is in case of deep discount bonds.

Charge: Charge is an incumbrance to meet the obligation under trust deed on certain assets which company agrees to mortgage either by way of first or second charge. First charge implies the priority in repayment of loan. Those who hold first charge against any specific asset will realise their claim from the net realisable value of such assets. Any amount of surplus from such assets given under first charge will be utilised for setting the claims for holder of second charge.

Types of Debenture: Debentures are of various types such as: secured and unsecured debentures redeemable and perpetual debentures, convertible and non-convertible debentures, zero coupon rate and specific rate, registered and bearer debentures.

Issue of Debenture: Debentures are said to be issued at par when the amount to be collected on them is equal to their nominal or face value. If the issue price is more than nominal or face value, it is said to be issued at a premium. If the issue price is less than the nominal or face value, it is said to be issued on discount. The amount received as premium is credited to 'securities premium account' whereas amount of discount allowed is debited to "loss/discount on issue" and is written-off over the years.

Issue of Debentures for consideration other than Cash: Sometimes debentures can be issued to vendor or suppliers of patents, copyrights and for transfer of intellectual property rights on preferential basis without receiving money in cash.

Purchase Consideration: Purchase consideration is amount paid by purchasing company in consideration for purchase of assets/business firm, another enterprise/vendor.

Collateral Security: Any security in addition to primary security is called 'collateral security'.

Redemption of Debenture: Means discharge of liability on account of debenture/bond by repayment made to debenture-holders. Normally, the redemption takes place on the expiry of period for which they have been issued, depending upon the terms and conditions of issue.

Question for Practice

Short Answer Questions

1. What is meant by a Debenture?
2. What does a Bearer Debenture mean?
3. State the meaning of 'Debentures issued as a collateral security'.
4. What is meant by 'Issue of debentures for consideration other than cash'?
5. What is meant by 'Issue of debenture at discount and redeemable at premium?
6. What is 'Capital Reserve'?
7. What is meant by a 'Irredeemable Debenture'?
8. What is a 'Convertible Debenture'?
9. What is meant by 'Mortgaged Debentures'?
10. What is discount on issue of debentures?
11. What is meant by 'Premium on Redemption of Debentures'?
12. How debentures are different from shares? Give two points.
13. Name the head under which 'discount on issue of debentures' appears in the balance sheet of a company.
14. What is meant by redemption of debentures?
15. Can the company purchase its own debentures?
16. What is meant by redemption of debentures by conversion?
17. How would you deal with 'Premium on Redemption of Debentures?
18. What is meant by 'Redemption out of Capital?
19. What is meant by redemption of debentures by 'Purchase in the Open Market'?
20. Under which head is the 'Debenture Redemption Reserve' shown in the balance sheet.

Long Answer Questions

1. Explain the different types of debentures?
2. Distinguish between a debenture and a share. Why debenture is known as loan capital? Explain.
3. Describe the meaning of 'Debenture Issued as Collateral Securities'. What accounting treatment is given to the issue of debentures in the books of accounts?
4. How is 'Discount on Issue of Debentures' treated in the books of accounts? How will you deal with the 'discount in issue of debentures' when the debentures are to be redeemed in instalments?

5. Explain the different terms for the issue of debentures with reference to their redemption.
6. Differentiate between redemption of debentures out of capital and out of profits.
7. Explain the guidelines of SEBI for creating Debenture Redemption Reserve.
8. Describe the steps for creating Sinking Fund for redemption of debentures.
9. Can a company purchase its own debentures in the open market? Explain.
10. What is meant by conversion of debentures? Describe the method of such a conversion.

Numerical Questions

1. G.Ltd. issued 75,00,000, 6% debentures of Rs.50 each at par payable Rs.15 on application and Rs.35 on allotment, redeemable at par after 7 years from the date of issue of debentures. Record necessary entries in the books of Company.
2. Y.Ltd. issued 2,000, 6% debentures of Rs.100 each payable as follows: Rs.25 on application; Rs.50 on allotment and Rs.25 on first and final call.
3. A.Ltd. issued 10,000, 10% Debentures of Rs.100 each at a premium of 5% payable as follows:

   Rs.10 on Application;

   Rs.20 along with premium on allotment and balance on first and final call.

   Record necessary Journal Entries.
4. A. Ltd. issued 90,00,000, 9% Debenture of Rs.50 each at a discount of 8%, redeemable at par any time after 9 years. Record necessary entries in the books of A. Ltd.
5. A.Ltd. issued 4,000, 9% Debentures of Rs.100 each on the following terms:

   Rs.20 on Application;

   Rs.20 on Allotment;

   Rs.30 on First call; and

   Rs.30 on Final call.

   The public applied for 4,800 debentures. Applications for 3,600 debentures were accepted in full. Applications for 800 Debentures were allotted 400 debentures and applications for 400 Debentures were rejected.
6. T. Ltd. offered 2,00,000, 8% debenture of Rs.500 each on June 30, 2002 at a premium of 10% payable as Rs.200 on application (including premium) and balance on allotment, redeemable at par after 8 years. But application are received for 3,00,000 debentures and the allotment is made on pro-rata basis. All the money due on application and allotment is received. Record necessary entries regarding issue of debentures.
7. X.Ltd. invites application for the issue of 10,000, 14% debentures of Rs.100 each payable as to Rs.20 on application, Rs.60 on allotment and the balance on call.

The company receives applications for 13,500 debentures, out of which applications for 8,000 debentures are allotted in full, 5,000 only 40% and the remaining rejected. The surplus money on partially allotted applications is utilised towards allotment. All the sums due are duly received.

8. R.Ltd. offered 20,00,000, 10% debentures of Rs.200 each at a discount of 7% redeemable at premium of 8% after 9 years. Record necessary entries in the books of R. Ltd.

9. M.Ltd. took over assets of Rs.9,00,00,000 and liabilities of Rs.70,00,000 of S.Ltd. and issued 8% debentures of Rs.100 each. Record necessary entries in the books of M. Ltd.

10. B.Ltd. purchased assets of the book value of Rs.4,00,000 and took over the liability of Rs.50,000 from Mohan Bros. It was agreed that the purchase consideration, settled at Rs,3,80,000, be paid by issuing debentures of Rs.100 each.

    What Journal entries will be made in the following three cases, if debentures are issued: (a) at par; (b) at discount; (c) at premium of 10%? It was agreed that any fraction of debentures be paid in cash.

11. X.Ltd. purchased a Machinery from Y ltd. at an agreed purchase consideration of Rs.4,40,000 to be satisfied by the issue of 12% debentures of Rs.100 each at a premium of Rs.10 per debenture. Journalise the transactions.

12. X.Ltd. issued 15,000, 10% debentures of Rs.100 each. Give journal entries in the balance sheet in each of the following cases:
    (i) The debentures are issued at a premium of 10%;
    (ii) The debentures are issued at a discount of 5%;
    (iii) The debentures are issued as a collateral security to bank against a loan of Rs.12,00,000; and
    (iv) The debentures are issued to a supplier of machinery costing Rs.13,50,000.

13. Journalise the following:
    (i) A debenture issued at Rs.95, repayable at Rs.100;
    (ii) A debenture issued at Rs.95, repayable at Rs.105; and
    (iii) A debenture issued at Rs.100, repayable at Rs.105;

    The face value of debenture in each of the above cases is Rs.100.

14. A.Ltd. issued 50,00,000, 8% debentures of Rs.100 at a discount of 6% on April 01, 2000 redeemable at premium of 4% by draw of lots as under:

    20,00,000 debentures on March, 2002

    10,00,000 debentures on March, 2004

    20,00,000 debentures on March, 2005

    Compute the amount of discount to be written-off in each year till debentures are paid. Also prepare discount/loss on issue of debenture account.

15. A company issues the following debentures:

(i) 10,000, 12% debentures of Rs.100 each at par but redeemable at premium of 5% after 5 years;

(ii) 10,000, 12% debentures of Rs.100 each at a discount of 10% but redeemable at par after 5 years;

(iii) 5,000, 12% debentures of Rs.1000 each at a premium of 5% but redeemable at par after 5 years;

(iv) 1,000, 12% debentures of Rs.100 each issued to a supplier of machinery costing Rs.95,000. The debentures are repayable after 5 years; and

(v) 300, 12% debentures of Rs.100 each as a collateral security to a bank which has advanced a loan of Rs.25,000 to the company for a period of 5 years.

Pass the journal entries to record the: (a) issue of debentures; and (b) repayment of debentures after the given period.

16. A company issued debentures of the face value of Rs,5,00,000 at a discount of 6% on January 01, 2011. These debentures are redeemable by annual drawings of Rs,1,00,000 made on December 31 each year. The directors decided to write-off discount based on the debentures outstanding each year.

    Calculate the amount of discount to be written-off each year. Give journal entries also.

17. A company issued 10% Debentures of the face value of Rs,1,20,000 at a discount of 6% on April 01, 2011. The debentures are payable by annual drawings of Rs.40,000 commencing from the end of third year.

    How will you deal with discount on debentures?

    Show the discount on debentures account in the company ledger for the period of duration of debentures. Assume accounts are closed on March 31 every year.

18. B.Ltd. issued debentures at 94% for Rs.4,00,000 on April 01, 2011 repayable by five equal drawings of Rs.80,000 each. The company prepares its final accounts on March 31 every year.

    Indicate the amount of discount to be written-off every accounting year assuming that the company decides to write-off the debentures discount during the life of debentures. (Amount to be written-off: 2011 Rs.6,000; 2012 Rs.6,800; 2013 Rs.5,200; 2014 Rs.3,600; 2015 Rs.2,000; 2016 Rs.400).

19. B. Ltd. issued 1,000, 12% debentures of Rs.100 each on April 01, 2010 at a discount of 5% redeemable at a premium of 10%.

    Give journal entries relating to the issue of debentures and debentures interest for the period ending March 31, 2011 assuming that interest is paid half yearly on September 30 and March 31 and tax deducted at source is 10%. B.Ltd. follows calendar year as its accounting year.

20. What journal entries will be made in the following cases when company redeems debentures at the expiry of period by serving the notice: (a) when debentures were issued at par with a condition to redeem them at premium; (b) when debentures were issued at premium with a condition to redeem that at par; and (c) when debentures were issued at discount with a condition to redeem them at premium?

21. On January 01, 2011, X. Ltd. issues 5,000, 8% debentures of Rs.100 each repayable at par at the end of three years. It has been decided to set up a cumulative sinking fund for the purpose of their redemption. The investments are expected to realise 4% net. The Sinking Fund Table shows that Rs.0.320348 amounts to one rupee @4% per annum in three years. On December 31, 2013 the balance at bank was Rs.2,42,360 and the investments realised Rs.3,25,000. The debentures were paid off.

    Give journal entries and show ledger account.

22. On April 01, 2011 a company issued 15% debentures of Rs.10,00,000 at par. The debentures were redeemable at par after three years on March 31, 2012. A sinking fund was set up to raise funds for redemption of debentures. The amount for the purpose was invested in 6% Government securities of Rs.100 each available at par. The sinking fund table shows that if investments earn 6% per annum, to get Re.1 at the end of 3 years, one has to invest Rs.0.31411 every year together with interest that will be earned. On March 31, 2014, all the Government securities were sold at a total loss of Rs. 6,000 and the debentures were redeemed at par.

    Prepare Debentures Account Sinking Fund Account, Sinking Fund Investment Account and Interest on Sinking Fund Investment Company closes its books of accounts every year on March 31.

23. On April 01, 2011 the following balances appeared in the books of Z. Ltd.:

	Rs.
6% Debentures	1,00,000
Debentures Redemption Reserve Fund	80,000
D.R. Reserve Fund Investments	80,000

    The investments consisted of 4% Government securities of the face value of Rs.90,000.

    The annual instalment was Rs.16,400. On March 31, 2012, the balance at Bank was Rs.26,000 (after receipt of interest on D.R.Reserve Fund Investment). Investments were realised at 92% and the debentures were redeemed. The interest for the year had already been paid.

    Show the ledger accounts affecting redemption.

24. The following balances appeared in the books of A.Ltd. on April 01, 2011

	Rs.
12% Debentures	4,00,000
Debentures Redemption Fund	3,60,000
Debentures Redemption Fund Investment	3,60,000
Securities Premium	30,000
Bank Balance	1,00,000

    On April 01, 2011, the company redeemed all the debentures at 105 per cent out of funds raised by selling all the investments at Rs.3,48,000. Prepare the necessary ledger accounts.

25. The following balances appeared in the books of Z.Ltd. on April 01, 2011

	Rs.
12% Debentures	1,50,000
Debentures Redemption Fund	1,25,000
Debentures Redemption Fund Investment	1,25,000
(Represented by Rs.1,47,500, 3% Govt. Securities	1,25,000

The annual instalment added to the fund is Rs.20,575. On March 31, 2012, the bank balance after the receipt of interest on the investment was Rs.39,100. On that date, all the investments were sold at 83 per cent and the debentures were duly redeemed.

Show the necessary ledger accounts for the year 2011.

26. What entries for the redemption of debentures will be done when : (a) debentures are redeemed by annual drawings out of profits; (b) debentures are redeemed by drawing a lot out of capital; and (c) debentures are redeemed by purchasing them in the open market when sinking fund for the redemption of debentures is not maintained – (i) when out of profit, and (ii) when out of capital?

27. A. Ltd. Company issued Rs,5,00,000 debentures at a discount of 5% repayable at par by annual drawings of Rs.1,00,000.

Make the necessary ledger accounts in the books of the company for the first year.

28. X.Ltd. issued 5,000, 15% debentures of Rs.100 each on January 01, 2004 at a discount of 10%, redeemable at a premium of 10% in equal annual drawings in 4 years out of capital.

Give journal entries both at the time of issue and redemption of debentures. (Ignore the treatment of loss on issue of debentures and interest.)

29. Z.Ltd. issued 2,000, 14% debentures of Rs.100 each on January 01, 2005 at a discount of 10%, redeemable at a premium of 10% in equal annual drawings in 4 years out of profits.

Give journal entries both at the time of issue and redemption of debentures. (Ignore the treatment of loss on issue of debentures and interest)

30. A.Ltd. purchased its own debentures of the face value of Rs.2,00,000 from the open market for immediate cancellation at Rs.92. Record the journal entries.

31. X.Ltd. redeemed 1,000, 12% debentures of Rs.50 each by converting them into 15% New Debentures of Rs.100 each. Journalise.

Answers to Test your Understanding

Test your Understanding – I

1. True, 2. False, 3. True, 4. False, 5. True, 6. True, 7. False, 8. False, 9. True, 10. False, 11. False, 12. False.

Test your Understanding – II

1 (c), 2 (b), 3 (a), 4 (a), 5 (b), 6 (c), 7 (b), 8 (b), 9 (a), 10 (c),

11 (c), 12 (b), 13 (a), 14 (c), 15 (c).

Test your Understanding – III

(I) Vendors Account, (2)Profit & Loss Appropriation Account, (3)Debenture Redemption Reserve Account, (4) Own Debentures Account, (5)Profit & Loss Account.

(II) (1) Debenture Account, (2) Sinking Fund Account, (3) General Reserve Account, (4) Debenture Redemption Reserve Account, (5) Loss on Issue of Debentures Account.

Financial Statements of a Company

3

> **Learning Objectives**
>
> *After studying this chapter, you will be able to :*
>
> - *Explain the nature and objectives of financial statements of a company;*
> - *Describe the form and content of Statement of Profit and Loss of a company as per (revised) schedule VI;*
> - *Describe the form and content of balance sheet of a company as per (revised) schedule VI;*
> - *Explain the significance and limitations of financial statements; and*
> - *Prepare the financial statements.*

Having understood how a company raises its capital, we have to learn the nature, objectives and types of financial statements it has to prepare including their contents, format, uses and limitations. The financial statements are the end products of accounting process. They are prepared following the consistent accounting concepts, principles, procedures and also the legal environment in which the business organisations operate. These statements are the outcome of the summarising process of accounting and are, therefore, the sources of information on the basis of which conclusions are drawn about the profitability and the financial position of a company. Hence, they need to be arranged in a proper form with suitable contents so that the shareholders and other users of financial statements can easily understand and use them in their economic decisions in a meaningful way.

3.1 Meaning of Financial Statements

Financial statements are the basic and formal annual reports through which the corporate management communicates financial information to its owners and various other external parties which include– investors, tax authorities, government, employees, etc. These normally refer to: (a) the balance sheet (position statement) as at the end of accounting period, and (b) the statement of profit and loss of a company. Now-a-days, the cash flow statement is also taken as an integral component of the financial statements of a company.

3.2 Nature of Financial Statements

The chronologically recorded facts about events expressed in monetary terms for a defined period of time are the basis for the preparation of periodical financial statements which reveal the financial position as on a date and the financial results obtained during a period. The American Institute of Certified Public Accountants states the nature of financial statements as, "the statements prepared for the purpose of presenting a periodical review of report on progress by the management and deal with the status of investment in the business and the results achieved during the period under review. They reflect a combination of recorded facts, accounting principles and personal judgements".

The following points explain the nature of financial statements:

1. *Recorded Facts:* Financial statements are prepared on the basis of facts in the form of cost data recorded in accounting books. The original cost or historical cost is the basis of recording transactions. The figures of various accounts such as cash in hand, cash at bank, trade receivables, fixed assets, etc. are taken as per the figures recorded in the accounting books. The assets purchased at different times and at different prices are put together and shown at costs. As these are not based on market prices, the financial statements do not show current financial condition of the concern.
2. *Accounting Conventions:* Certain accounting conventions are followed while preparing financial statements. The convention of valuing inventory at cost or market price, whichever is lower, is followed. The valuing of assets at cost *less* depreciation principle for balance sheet purposes is followed. The convention of materiality is followed in dealing with small items like pencils, pens, postage stamps, etc. These items are treated as expenditure in the year in which they are purchased even though they are assets in nature. The stationery is valued at cost and not on the principle of cost or market price, whichever is less. The use of accounting conventions makes financial statements comparable, simple and realistic.
3. *Postulates:* Financial statements are prepared on certain basic assumptions (pre-requisites) known as postulates such as going concern postulate, money measurement postulate, realisation postulate, etc. Going concern postulate assumes that the enterprise is treated as a going concern and exists for a longer period of time. So the assets are shown on historical cost basis. Money measurement postulate assumes that the value of money will remain the same in different periods. Though there is drastic change in purchasing power of money, the assets purchased at different times will be shown at the

amount paid for them. While, preparing statement of profit and loss the revenue is included in the sales of the year in which the sale was undertaken even though the sale price may be received over a number of years. The assumption is known as realisation postulate.

4. *Personal Judgments:* Under more than one circumstance, facts and figures presented through financial statements are based on personal opinion, estimates and judgments. The depreciation is provided taking into consideration the useful economic life of fixed assets. Provisions for doubtful debts are made on estimates and personal judgments. In valuing inventory, cost or market value, whichever is less is being followed. While deciding either cost of inventory or market value of inventory many personal judgments are to be made based on certain considerations. Personal opinion, judgments and estimates are made while preparing the financial statements to avoid any possibility of over statement of assets and liabilities, income and expenditure, keeping in mind the convention of conservatism.

Thus, financial statements are the summarised reports of recorded facts and are prepared following the accounting concepts, conventions and requirements of Law.

3.3 Objectives of Financial Statements

Financial statements are the basic sources of information to the shareholders and other external parties for understanding the profitability and financial position of any business concern. They provide information about the results of the business concern during a specified period of time in terms of assets and liabilities, which provide the basis for taking decisions. Thus, the primary objective of financial statements is to assist the users in their decision-making. The specific objectives include the following:

1. *To provide information about economic resources and obligations of a business:* They are prepared to provide adequate, reliable and periodical information about economic resources and obligations of a business firm to investors and other external parties who have limited authority, ability or resources to obtain information.
2. *To provide information about the earning capacity of the business:* They are to provide useful financial information which can gainfully be utilised to predict, compare, and evaluate the business firm's earning capacity.
3. *To provide information about cash flows:* They are to provide information useful to investors and creditors for predicting, comparing and evaluating, potential cash flows in terms of amount, timing and related uncertainties.

4. *To judge effectiveness of management:* They supply information useful for judging management's ability to utilise the resources of a business effectively.
5. *Information about activities of business affecting the society:* They have to report the activities of the business organisation affecting the society, which can be determined and described or measured and which are important in its social environment.
6. *Disclosing accounting policies:* These reports have to provide the significant policies, concepts followed in the process of accounting and changes taken up in them during the year to understand these statements in a better way.

3.4 Types of Financial Statements

The financial statements generally include two statements: balance sheet and statement of profit and loss which are required for external reporting and also for internal needs of the management like planning, decision-making and control. Apart from these, there is also a need to know about movements of funds and changes in the financial position of the company. For this purpose, a statement of changes in financial position of the company or a cash flow statement is prepard.

Balance Sheet : Balance sheet of a company is prepared and presented in the form prescribed in (Revised) Schedule VI of the Companies Act, 1956. The form prescribed is vertical and is given in figure 3.1.

Every company registered under the Act shall prepare its balance sheet, statement of profit and loss and Notes to Account thereto in accordance with the manner prescribed in teh Schedule VI to the Companies Act, 1956 to harmonise the disclosure requirement with the accounting standards and to converge with new reforms. With regard to this, the Ministry of Corporate Affairs (MCA) has prescribed a (Revised) Schedule VI to the Companies Act, 1956 (vide Notification dated 28.02.2011). It is applied to the financial statements prepared for all financial periods beginning on or after April 01, 2011 by the Indian Companies. The revised Schedule VI has introduced many disclosure requirements. It has also done away with several statutory disclosure requirements.

Balance Sheet as at 31st March, 20.....

Particulars	Note No.	Figure as at the end of Current reporting period	Figure as at the end of 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) 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			
(d) Short-term provisions			
Total			
II. ASSETS			
1) Non-current Assets			
(a) Fixed assets			
(i) Tangible assets			
(ii) Intangible assets			
(iii) Capital work-in-progress			
(iv) Intangible assets under developement			
(b) Non-current investments			
(c) Deferred tax assets (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) Short-term loans and advances			
(f) Other current assets			
Total			
See accompanying notes to the financial statements			
NOTES:			

Fig. 3.1: Vertical Form of Balance Sheet

3.4.1 Important Features of Revised Schedule VI

1. It applies to all Indian companies preparing financial statement commencing on or after April 01, 2011.
2. It does not apply to (i) Insurance or Banking Company (ii) Company for which a form of balance sheet or income statement is specified under any other Act.
3. Accounting standards shall prevail over Schedule VI of the Companies Act, 1956.
4. Disclosure on the face of the financial statements or in the notes are essential and mandatory.
5. Revised Schedule VI has eliminated the concept of 'Schedule'.
6. Terms in the revised schedule VI will carry the meaning as defined by the applicable accounting standards.
7. Balance to be maintained between excessive details that may not assist users of financial statements and not providing important information.
8. Current and non-current bifurcation of assets and liabilities is applicable.

Box 1

Rounding off Rule for figures in the Presentation of Financial Statements

Rounding off of figures to be reported in the financial statements is based on the size of turnover:

1. Turnover $<$ Rs. 100 crore: Nearest hundreds, thousands, lakhs or millions or decimal thereof;
2. Turnover $>$ Rs. 100 crore: Nearest hundreds, thousands, lakhs or millions or decimal thereof;

9. Rounding off requirements is mandatory (refer box 1).
10. Vertical format for presentation of financial statement is prescribed (refer figure 3.1).
11. Debit balance in the statement of profit and loss to be disclosed for share application money pending allotment.
12. Mandatory disclosure for share application money pending allotment.
13. 'Sundry Debtors' and 'Sundry Creditors' replaced by terms 'Trade Receivables' and 'Trade Payables'.

Shareholders fund: Implication of Revised Schedule VI

In (revised) schedule VI, the shareholders' funds are sub-classified on the face of the balance sheet.

a) Share Capital
b) Reserves and Surplus
c) Money received against Share Warrants

Share Capital

Disclosures relating to share capital are to be given in notes to accounts of (revised) schedule VI. The following additions/modifications are significant:

a) For each class of shares, recognition of the number of shares outstanding at the beginning and at the end of the reporting period is required.

b) The rights, preferences and restrictions attaching to each class of shares including restrictions on the distribution of dividends and repayment of capital.

c) In order to bring clarity regarding the identity of ultimate owners of the company:

   i) Disclosure of shares in respect of each class in the company held by its holding company or its ultimate holding company including shares held by subsidiaries or associates of holding company or the ultimate holding company in aggregate.

   ii) Disclosure of shares in the company held by each shareholder holding more than 5% shares specifying the number of shares held.

   iii) Disclosure of the following for the period of 5 years immediately preceding the date of the balance sheet:

   - Aggregate number and class of shares allotted as fully paid-up pursuant to contracts without payment being received in cash.
   - Aggregate number and class of shares allotted as fully paid-up by way of bonus shares.
   - Aggregate number and class of shares bought back.

   This may be noted that as per (revised) schedule VI, the information of shareholders funds are presented on the face of financial statements limited only to broad and significant items. Details are given in Notes to Accounts. In (revised) schedule VI, there is no provision of Schedule 1, 2 or 3. All details are to be given mandatorily in Notes to Accounts by note no.1, 2 or 3.

d) For each class of share capital:

   i) The number and amount of share authorised.

   ii) The number of shares issued, subscibed, fully paid and subscribed but not fully paid.

   iii) Par value per share.

   iv) Reconciliation of the number of shares outstanding at the beginning and end of the accounting period.

   v) Rights, preferences and restrictions attaching each class of shares including restrictions on the distribution of dividends and repayment of capital.

   vi) Aggregate number of shares with respect to each class in the company held by its holding company, its ultimate holding company including shares held by or by subsidiaries or associates of the holding company or the ultimate holding company.

vii) Shares reserved for issue under options and contracts/commitments for the sale of shares/disinvestment, including terms and amount.

viii) For a period of 5 years immediately proceeding the date at which balance sheet in prepared for:
   (a) Shares reserved under contracts/commitments.
   (b) Number and class of shares bought back.
   (c) Number and class of shares allotted for consideration other than cash and bonus shares.

ix) Terms of any securities convertible into equity/preference shares issued along with earliest date of conversion in descending order, starting form the farthest such date.

x) Calls unpaid (aggregate).

xi) Forfeited shares (amout originally paid up).

Reserve and Surplus

As per (revised) schedule VI, Reserves and Surplus are required to be classified as:

i) Capital Reserve
ii) Capital Redemption Reserve
iii) Securities Premium Reserve
iv) Debenture Redemption Reserve
v) Revaluation Reserve
vi) Share Options Outstanding Account
vii) Other Reserves (Specifying nature and purpose)
viii) Surplus: Balance in statement of profit and loss; disclosing allocations and appreciations such as dividend, bonus shares, transfer to/from reserve, etc.

Significant additions/modifications regarding disclosure of reserves and surplus are as follows:

a) A reserve specifically represented by earmarked investments shall be termed as “Fund”.
b) ‘Debit’ balance of statement of profit and loss shall be shown as a negative figure under ‘Surplus’ head.
c) The balance of “Reserve and Surplus” after adjusting negative balance of Surplus, if any. Shall be shown under “Reserve and Surplus” read even if the resulting figure is ‘negative’.
d) Share options outstanding account has been recognised as a separate item under ‘Reserve and Surplus’. ICAI’s Guidance Note on Accounting for Employee sharebased payments requires a credit balance in the *‘Stock option outstanding Account’* to be disclosed in balance sheet under separate heading’ between share capital and reserves and surplus as a part of shareholders fund.

Money Received against share warrants

The (revised) schedule VI specifically requires 'money received against share warrants' to be disclosed as a separates line item under 'share holder's fund'.

Illustration 1

Dinkar Ltd. has an authorised capital of Rs. 50,00,000 divided into Equity shares of Rs. 100 each. The company invited applications for 40,000 shares, applications for 36,000 shares were received. All calls were made and duly received except for 500 shares on which the final call of Rs. 20 was not received. The company forfeited 200 shares on which final call was not received. Show how share capital will appear in the balance sheet of the company as per (revised) schedule VI Part-I of the Companies Act, 1956. Also prepare' Notes to Accounts' for the same.

Solution:

Books of Dinkar Limited
Balance Sheet as at .... (Date) ....

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Shareholders' Funds		
a) Share capital	1	35,90,000

Notes to Accounts

Particulars	Amount (Rs.)	Amount (Rs.)
1. Share capital		
Authorised share capital Reserve and surplus		
50,000 equity shares of Rs. 100 each		50,00,000
Issued capital		
40,000 equity shares of Rs. 100 each		40,00,000
Subscirbed and fully paid up capital		
35,500 equity shares of Rs. 100 each fully paid		35,50,000
Subscirbed but not fully paid-up capital		
300 equity shares of Rs. 100 each fully called up	30,000	
Less: Calls-in-arrears (300X20)	(6,000)	
	24,000	
Add: Share forfeiture A/c (200 shares X Rs. 80)	16,000	40,000
		35,90,000

Current and Non-current Classification

(Revised) Schedule VI has introduced the classified balance sheet in terms of current and non-current assets and current and non-current liabilities. The criteria for defining current assets and liabilities has been clearly spelled out with non-current assets and liabilities being the residual items.

Current/Non-current distinction

A item is classified as current:

- if it is involved in entity's operating cycle or,
- is expected to be realised/settled within twelve months or,
- if it is held primarily for trading or,
- is cash and cash equivalent or,
- if entity does not have on unconditional rights to defer settlement of liability for at best 12 months after the reporting period,
- other assets and liabilities are non-current.

Illustration 2

Show the following items in the balance sheet of Amba Ltd. as per revised schedule VI as on March 31, 2013:

8% Debentures	10,00,000
Equity share capital	50,00,000
Securities premium	20,000
Preliminary expenses	40,000
Statement of Profit & Loss (cr.)	1,50,000
Discount on issue of 8% debentures	40,000
(Amount to be written in next 4 years approx.)	
Loose tools	20,000
Bank balance	60,000
Cash in hand	38,000

Solution:

Books of Amba Ltd.
Balance Sheet as at March 31, 2013

Particulars		Note No.	Amount (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital			50,00,000
b) Reserve and surplus		1	1,30,000
2. Non-current Liabilities			
a) Long-term borrowing		2	10,00,000
II. Assets			
1. Non-current assets			
a) Other non-current assets		3	30,000
2. Current assets			
a) Inventories		4	20,000
b) Cash and cash equivalents		5	98,000
c) Other current assets		6	10,000

* Relevant items only

Notes to Accounts

Particulars		Amount (Rs.)	Amount (Rs.)
1. Reserve and surplus			
Securities premium	20,000		
Less: Preliminary expenses	(40,000)		
		(20,000)	
Statement of profit and loss		1,50,000	**1,30,000**
2. Long-term borrowings			
8% debentures			10,00,000
3. Other non-current assets			
Discount on issue of 8% debentures (of Rs. 40,000)			30,000
4. Inventory			
Loose tools			20,000
5. Cash and cash equivalents			
Bank balance		60,000	
Cash in hand		38,000	**98,000**
6. Other current assets			
Discount on issue of 8% debentures (of Rs. 40,000)			**10,000**

Important points:

- Preliminary expenses are to be written-off completely in the year in which such expenses are incurred. They should be written-off first from securities premium and the balance if any, from statement of profit & loss.
- Borrowing costs such as discount on issue of debentures could be written-off over loan period.

Share application money

(Revised) Schedule VI requires share application money not exceeding the issued capital and to the extent non-refundable shall be classified as non-current. It will be shown on this face of balance sheet as share application money pending allotment.

This may also be noted here in case the issued capital is equal to authorized share capital and the company has filed an application to increase the authorised capital but it is still pending. In case the company receives share application money, it will be shown as other current liabilities with Note to Account till the authorised capital is raised.

Borrowings

Total borrowings are categorised into long-term borrowings, short-term borrowings and current maturities to long term debt.

(i) Loans which are repayable in more than twelve months/operating cycle are classified as long-term borrowings on the face of balance sheet.

(ii) Loans repayable on demand or whose original tenure is not more than twelve months/operating cycle are classified as short-term borrowings on the face of balance sheet.

(iii) Current maturities to long-term loan include amount repayable within twelve months/operating cycle unde other current liabilities with Note to Account.

Deferred tax assets/liabilities are always non-current. This is in accordance to IAS-I.

Trade payables

Sundry creditors have been replaced with the term Trade Payables and are classified as current and non-current. Trade payables to be settled beyond 12 months from the date of balance sheet/operating cycle starting from the date of recognition are classified under "other long-term liabilities" with Note to Account. For example, purchase of goods and services in normal course of business. The balance of trade payables are classified as current liabilities on the face of balance sheet.

Provisions

The amount of provision settled within 12 months from balance sheet date or within operating cycle period from date of its recognition is classified as short term provisions and shown under current liabilities on the face of balance sheet. Others are depicted as long-term provisions under non-current liabilities on the face of balance sheet.

Fixed assets

There is no change in the treatment of fixed assets. Both tangible and intangible assets are non-current. This may also be noted if the useful life of the asset is less than 12 months. Still it will full under non-current.

Investments

Investments are also classified into current and non-current categories. Investments expected to realise within twelve months are considered as current investments under current assets. Others are classified as non-current investments under non-current assets-both are shown on the face of the balance sheet.

Inventories

All inventories are always treated as current.

Trade receivables

Trade receivables realised beyond twelve months from reporting date/operating cycle starting from the date of their recognition are classified as “Other non-current assets” under the head non-current assets with Note to Accounts. For example, sale of goods or services rendered in normal course of business. Others are classified as current assets and shown on the face of the balance sheet.

Cash and cash equivalent

It is always current however, amounts which qualify as cash and cash equivalents as per IAS-3 is shown here. The old Schedule VI contained cash and bank balances on the face of balance sheet as against cash and cash equivalents. Now that supremacy is accorded to AS over schedule VI, cash and cash equivalents are to the disclosed in accordance to IAS-3.

Illustration 3

Show the following items in the balance sheet of Sunfill Ltd. as at March 31, 2013 as per (revised) schedule VI, Part-I of the Companies Act, 1956:

Particulars	Amount (Rs.)
General Reserve (since 31 March 2012)	5,00,000
Statement of Profit & Loss (Debit Balance) for 2012-13	(3,00,000)

Solution:

Books of Sunfill Ltd.
Balance Sheet as at March 31, 2013

Particulars	Note No.	31st March 2012 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders’ Funds			
Reserve and surplus	1	2,00,000	5,00,000

Notes to Accounts

Particulars	Amount (Rs.)
1. Reserve and surplus	
General Reserve (1 April, 2012)	5,00,000
Less: Statement of profit and loss (Dr. balance)	(3,00,000)
	2,00,000

Illustration 4

Show the following items in the balance sheet of Avalon Ltd. as at March 31, 2013 as per (revised) schedule VI, Part-I of the Companies Act, 1956:

	Rs. in Lakhs
General Reserve (since 31 March 2012)	5
Statement of Profit & Loss (Debit Balance) for 2012-13	(8)

Solution:

Books of Avalon Ltd.
Balance Sheet as at March 31, 2013

Particulars	Note No.	31st March 2013 (Rs.)
I. Equity and Liabilities		
1. Shareholders' Funds		
a) Reserve and surplus	1	(3,00,000)

Notes to Accounts

Particulars	Amount (Rs.)
1. Reserve and surplus	
i) General reserve (1 April, 2012)	**5,00,000**
ii) Less: Statement of profit and loss	**(8,00,000)**
(Debit balance)	(3,00,000)

*Underwriting commission could be written-off gradually between 3-5 years.

Illustration 5

Arushi Ltd. issued 5,000, 10% debentures of Rs. 100 each at par but redeemable at a premium of 5% after 5 years. Give journal entries and also prepare the balance sheet of the company.

Solution:

Books of Arushi Ltd.
Journal

Date	Particulars		LF	Debit Rs.	Credit Rs.
1	Bank A/c	Dr.		5,00,000	
	To 10% Debenture Application and Allotment A/c				5,00,000
	(Being application money received)				
	10% Debenture Application and Allotment A/c	Dr.		5,00,000	
	Loss on Issue of Debentures A/c	Dr.		25,000	

To 10% Debentures A/c To Premium on Redemption of Debentures A/c (Being debentures issued at par but redeemable at premium)			5,00,000 25,000

Arushi Ltd.
Balance Sheet as at ....

Particulars		Note No.	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Non-current Liabilities			
a) Long-term borrowing		1	5,00,000
b) Other long-term liabilities		2	25,000
Total			**5,25,000**
II. Assets			
1. Non-current assets			
a) Other non-current assets		3	20,000
2. Current assets			
a) Cash and cash equivalents		4	5,00,000
b) Other current assets		5	5,000
Total			**5,25,000**

Notes to Accounts

Particulars	Amount (Rs.)
1. Long-term borrowings	
5,000, 10% debentures of Rs. 100 each	5,00,000
2. Other long-term liabilities	
Premium on redemption of debentures A/c	25,000
3. Other non-current assets	
Less on issue of debentures (4/5th at Rs. 25,000)	20,000
4. Cash and cash equivalents	
Cash at bank	5,00,000
5. Other current assets	
Loss on issue of debentures (1/5th of Rs. 25,000, i.e. amount to be written-off in next 12)	5,000

Do it yourself

Classify the following items in the balance sheet of a company as per section-211 and part-I or schedule VI (revised) of the Companies Act 1956

Sl. No.	Items	Major Head	Sub-head (if any)
1.	Goodwill		
2.	Forfeited shares		
3.	Acceptances		
4.	Preliminary expenses		

5.	Capital reserve		
6.	Loans from banks		
7.	Investment in shares and debentures		
8.	Interest accrued and due on debentures		
9.	Interest accrued but not due on Secured Loans		
10.	Interest accrued but not due on Unsecured Loans		
11.	Interest accrued on Investments		
12.	Surplus		
13.	Securities Premium Reserve		
14.	Loose Tools		
15.	Provision for Taxation		
16.	Under writing Commission		
17.	Bills of Exchange		
18.	Unclaimed dividend		
19.	Short term loans & advances		
20.	Live stock		
21.	Calls unpaid/class-in-arrears		
22.	Uncalled liability on shares partly paid		
23.	Discount allowed on issue of shares and debentures (if amortised after 12 months)		
24.	Discount allowed on issue of shares and debentures (if amortised within 12 months)		
25.	Pre-paid Insurance		
26.	Stores and spare parts		
27.	Advances from customers		
28.	Debentures redemption reserve		
29.	Premium on redemption of debentures		
30.	Loss on issue of debentures		
31.	Debentures redemption fund		
32.	Debentures redemption fund investment		
33.	Vehicles		
34.	Sinking fund		
35.	Sinking fund investment		
36.	Advances to suppliers		
37.	Patents, trademarks, design		
38.	Calls-in-advance		
39.	Deposits with custom authorities		
40.	Arrears of fixed cumulative dividend		

41.	Furniture and fittings		
42.	Brokerage on issues of shares		
43.	Statement of profit & loss (Dr.)		
44.	Capital work-in-progress		
45.	Provision for doubtful debts		
46.	Statement of profit & loss (Cr.)		
47.	Uncalled liability on partly paid shares held as investments		
48.	Uncalled liability on partly paid debentures held as investments		
49.	Claims against the company not acknowledged as debt		
50.	Capital redemption reserve		
51.	Public deposits		
52.	Authorised capital		

Illustration 6

From the given particulars of Shine and Bright Co. Ltd. as on March 31, 2013, prepare balance sheet in accordance to the (revised) schedule VI:

Particulars	Amount Rs.	Particulars	Amount Rs.
Preliminary Expenses	2,40,000	Goodwill	30,000
Discount on Issue of shares	20,000	Loose Tools	12,000
10% Debentures	2,00,000	Motor vehicles	4,75,000
Stock in Trade	1,40,000	Provision for tax	16,000
Cash at bank	1,35,000		
Bills receivables	1,20,000		

Solution:

Book of Shine and Bright Ltd.
Balance Sheet as at March 31, 2013

Particulars	Note No.	Figure as at the end of current reporting period	Figure as at the end of previous reporting period
I. Equity and Liabilities			
1. Non-current Liabilities			
a) Long-term borrowings	1	2,00,000	
2. Current liabilities			
a) Short-term provisions	2	6,000	
II. Assets			
1. Non-current assets			
a) Fixed assets	3	4,75,000	
Tangible assets			
Intangible assets			

2. Other non-current assets* Current assets a) Inventories b) Trade receivables c) Cash and cash equivalents	4 5 6 7	30,000 2,60,000 1,52,000 12,000 1,35,000	

Notes to Accounts

Particulars		Amount (Rs.)
1. Long-term borrowings:		
10% debentures		2,00,000
2. Short-term provisions:		
Provision for taxation		16,000
3. Fixed assets:		
(i) Tangible assets		
Motor vehicles		4,75,000
(ii) Intangible assets		
Goodwill		30,000
4. Other non-current assets		
Preliminary expenses	2,40,000	
Discount on issue of debentures	20,000	2,60,000
5. Inventories		
Stock in trade	1,40,000	
Loose tools	12,000	1,52,000
6. Trade receivables		
Bills receivables		12,000
7. Cash & cash equivalents		
Cash at bank		1,35,000

*It has been assumed that discount on issue of debentures is not written-off in the next 12 months of the reporting period.

3.5 Form and contexts of Statement of Profit and Loss

Statement of profit and loss of represents revenue, expenses and financial result of a business entity. A form for preparing statement of profit and loss under (Revised) Schedule VI, Part-II of the companies Act 1956, is given in figure 3.2.

Statement of Profit and Loss for the year ended __________

	Particulars	Note No.	Figure as at the end of Current reporting period	Figure as at the end of Previous reporting period
I	Revenue from operations			
II	Other income			
III	Total Revenue (I+II)			

IV	Expenses: Cost of materials consumed Purchases of stock-in-trade Changes in inventories of finished goods work-in-progress and stock-in-trade Employee benefits expense Finance costs Depreciation and amortisation expense Other expenses Total expenses			
V	Profit before extraordinary items and tax (V-VI)			
VI	Exceptional items			
VII	Profit before extraordinary items and tax (V-VI)			
VIII	Extraordinary items			
IX	Profit before tax (VII-VIII)			
X	Tax expense: (1) Current tax (2) Deferred tax			
XI	Profit/(Loss) for the period from continuing operations (VII-VIII)			
XII	Profit/(Loss) from discontinuing operations			
XIII	Tax expense of discontinuing operations			
XIV	Profit/(Loss) from Discontinuing operations (after tax) (XII-XIII)			
XV	Profit/(Loss) for the period (XI + XIV)			
XVI	Earnings per equity share: (1) Basic (2) Diluted			

Fig. 3.2: Form at of Statement of Profit and Loss

The items of statement of profit and loss are discussed as follows:

1. Revenue from operations

   This includes:

   (i) Sale of products

   (ii) Sale of services

   (iii) Other operating revenues

In respect to a finance company, revenue from operational shall include revenue from interest, dividend and income from other financial services.

It may be noted that under each of the above, heads shall be disclosed separately by way of notes to accounts to the extent applicable.

2. Other income

   (Revised) Schedule VI requires the following classification:

   (i) Interest income (in case of a company other than a finance company),

(ii) Dividend income,

(iii) Net gain/loss on sale of investments,

(iv) Other non-operating income (net of expenses directly athileutable to such income).

3. Expense

(Revised) Schedule VI requires the following classification:

Expenses incurred to earn the income shown under various heads as discussed below:	
(a) Cost of Materials	It applies to manufacturing companies. It consists of raw materials and other materials consumed in manufacturing of goods.
(b) Purchase of Stock-in-trade	It means purchases of goods for the purpose of trading.
(c) Changes in inventories of finished goods, WIP and stock-in-trade	It is the difference between opening inventory (stock) of finished goods, WIP and stock-in-trade and closing inventory.
(d) Employees benefit expenses	Expenses incurred on employees towards salary, wages leave encashment, staff welfare, etc., are shown under this head. Employees benefit expenses may be further categorised into direct and indirect expenses.
(e) Finance cost	It is the expenses towards interest charges during the year on the borrowings. Only the interest cost is to be shown under this head. Other financial expenses such as bank charges are shown under "Other Expenses".
(f) Depreciation and	Depreciation is the diminution in the value of fixed assets whereas amortisation is writing off the amount relating to intangible assets.
(g) Other expenses	All other expenses which do not fall in the above categories are shown under other expenses. Other expenses may further be categorised into direct expenses, indirect expenses and non-operating expenses.

Illustration 8

From the following particulars prepare Statement of profit and loss as per the revised Schedule VI:

Balances	Rs.	Rs.
Plant and Machinery	1,60,000	
Land	6,74,000	
Depreciation on Plant and Machine	16,000	
Purchases (Adjusted)	4,00,000	
Closing stock	1,50,000	
Wages	1,20,000	
Sales (Net)		10,00,000
Salaries	80,000	
Bank overdraft		2,00,000

10% debentures (issued on 1st April, 2013)		1,00,000
Equity share capital- shares of Rs. 100 each (fully paid)		2,00,000
Preference share capital- 1,000; 6% shares of Rs. 100 each (fully paid)		1,00,000
	16,00,000	**16,00,000**

Additional information norms:

(i) Equity dividend @ 10% declared on paid-up capital.
(ii) Dividend on the preference share capital paid in full.
(iii) Rs. 2,00,000 transferred to to general reserve.

Solution:

Statement of Profit and Loss
for the year ending 31st March, 2013

Particulars	Note No.	Amount (Rs.)
I. Income		
Revenue from operations (Sales)		10,00,000
Total		10,00,000
II. Expenses		
Cost of materials consumed (Adjusted purchase)		4,00,000
Employees benefit expenses	1	2,00,000
Finance cost		10,000
Depreciation and amortisation		16,000
Total		6,26,000
Profit before tax (I-II)		**3,74,000**

3.6 Uses and Importance of Financial Statements

The users of financial statements include management, investors, shareholders, creditors, government, bankers, employees and public at large. Financial statements, provide the necessary information about the performance of the management to these parties interested in the organisation and help in taking appropriate economic decisions. It may be noted that the financial statements constitute an integral part of the Annual Reports of the companies in addition, the directors report, auditors report, corporate governance report, and management discussion and analysis.

The various uses and importance of financial statements are as follows:

1. *Report on stewardship function:* Financial statements report the performance of the management to the shareholders. The gaps between the management performance and ownership expectations can be understood with the help of financial statements.

2. *Basis for fiscal policies:* The fiscal policies, particularly taxation policies of the government, are related with the financial performance of corporate undertakings. The financial statements provide basic input for industrial, taxation and other economic policies of the government.
3. *Basis for granting of credit:* Corporate undertakings have to borrow funds from banks and other financial institutions for different purposes. Credit granting institutions take decisions based on the financial performance of the undertakings. Thus, financial statements form the basis for granting of credit.
4. *Basis for prospective investors:* The investors include both short-term and long-term investors. Their prime considerations in their investment decisions are security and liquidity of their investment with reasonable profitability. Financial statements help the investors to assess long-term and short-term solvency as well as the profitability of the concern.
5. *Guide to the value of the investment already made:* Shareholders of companies are interested in knowing the status, safety and return on their investment. They may also need information to take decision about continuation or discontinuation of their investment in the business. Financial statements provide information to the shareholders in taking such important decisions.
6. *Aids trade associations in helping their members:* Trade associations may analyse the financial statements for the purpose of providing service and protection to their members. They may develop standard ratios and design uniform system of accounts.
7. *Helps stock exchanges:* Financial statements help the stock exchanges to understand the extent of transparency in reporting on financial performance and enables them to call for required information to protect the interest of investors. The financial statements enable the Inventory brokers to judge the financial position of different concerns and take decisions about the prices to be quoted.

3.7 Limitations of Financial Statements

Though utmost care is taken in the preparation of the financial statements and provide detailed information to the users, they suffer from the following limitations:

1. *Do not reflect current situation:* Financial statements are prepared on the basis of historical cost. Since the purchasing power of money is changing, the values of assets and liabilities shown in financial statement do not reflect current market situation.
2. *Assets may not realise:* Accounting is done on the basis of certain conventions. Some of the assets may not realise the stated values, if

the liquidation is forced on the company. Assets shown in the balance sheet reflect merely unexpired or unamortised cost.

3. *Bias:* Financial statements are the outcome of recorded facts, accounting concepts and conventions used and personal judgments made in different situations by the accountants. Hence, bias may be observed in the results, and the financial position depicted in financial statements may not be realistic.
4. *Aggregate information:* Financial statements show aggregate information but not detailed information. Hence, they may not help the users in decision-making much.
5. *Vital information missing:* Balance sheet does not disclose information relating to loss of markets, and cessation of agreements, which have vital bearing on the enterprise.
6. *No qualitative information:* Financial statements contain only monetary information but not qualitative information like industrial relations, industrial climate, labour relations, quality of work, etc.
7. *They are only interim reports:* Statement of Profit and Loss discloses the profit/loss for a specified period. It does not give an idea about the earning capacity over time similarly, the financial position reflected in the balance sheet is true at that point of time, the likely change on a future date is not depicted.

Terms Introduced in the Chapter

1. Financial Statements
2. Statement of profit and loss
3. Balance Sheet
4. Cost of Material consumed
5. Postulates
6. Shareholders Funds

Summary

Financial Statements: Financial statements are the end products of accounting process, which reveal the financial results of a specified period and financial position as on a particular date. They are the general purpose financial statements prepared and published by every corporate undertaking for the benefit of the parties interested. These statements include Statement of profit and loss and balance sheet. The basic objective of these statements is to provide information required for decision-making by the management as well as other outsiders who are interested in the affairs of the undertaking.

Balance Sheet: The balance sheet shows all the assets owned by the concern, all the obligations or liabilities payable to outsiders or creditors and claims of the owners on a particular date. It is one of the important statements depicting the financial position or status or strength of an undertaking.

Statement of Profit and Loss: The Statement of profit and loss is prepared for the above period to determine the operational results of an undertaking. It is a statement of revenue earned and the expenses incurred for earning the revenue. It is a performance report showing the changes in income, expenses, profits and losses as a result of business operations during the year between two balance sheet dates.

Significance of Financial Statements: The users of financial statements include Shareholders, Investors, Creditors, Lenders, Customers, Management, Government, etc. Financial statements help all the users in their decision-making process. They provide data about general purpose needs of these members.

Limitations of Financial Statements: Financial statements are not free from limitations. They provide only aggregate information to satisfy the general purpose needs of the users but not for the specific purpose needs. They are technical statements understood by only persons having some accounting knowledge. They reflect historical information but not current situation, which is essential in any decision making. In addition, one can get idea about the organisation's performance in terms of quantitative changes but not in qualitative terms like labour relations, quality of work, employees satisfaction, etc. the financial statements are neither complete nor accurate as the flow of income and expenses are segregated using best judgement apart from accepted concepts. Hence, these statements need proper analysis before their use in decision-making.

Questions for Practice

Short Answer Questions

1. State the meaning of financial statement analysis?
2. What are limitations of financial statement analysis?
3. List any three objectives of analysing financial statements?
4. State the importance of financial statements to
   (i) shareholders
   (ii) creditors
   (iii) government
   (iv) investors

5. How will you disclose the following items in the Balance Sheet of a company;
   (i) Loose tools
   (ii) Uncalled liability on partly paid-up shares
   (iii) Debentures redemption reserve
   (iv) Mastheads and publishing titles
   (v) 10% debentures
   (vi) Proposed dividend
   (vii) Share forfeited account
   (viii) Capital redemtion reserve
   (ix) Mining rights
   (x) Work-in-progress

Long Answer Questions

1. Explain the nature of the financial statements.
2. Explain in detail about the significance of the financial statements.
3. Explain the limitations of financial statements.
4. Prepare the format of statement of profit and loss and explain its items.
5. Prepare the format of balance sheet and explain the various elements of balance sheet.
6. Explain how financial statements are useful to the various parties who are interested in the affairs of an undertaking?
7. 'Financial statements reflect a combination of recorded facts, accounting conventions and personal judgements' discuss.
8. Explain the process of preparing income statement and balance sheet.

Numerical Questions

1. Show the following items in the balance sheet as per the provisions of the companies Act, 1956 in (Revised) Schedule VI:

Particulars	Rs.	Particulars	Rs.
Preliminary Expenses	2,40,000	Good will	30,000
Discount on issue of shares	20,000	Loose tools	12,000
10% Debentures	2,00,000	Motor Vehicles	4,75,000
Stock in Trade	1,40,000	Provision for tax	16,000
Cash at bank	1,35,000		
Bills receivable	1,20,000		

2. On 1st Aril, 2013, Jumbo Ltd. issued 10,000; 12% debentures of Rs. 100 each a discount of 20%, redeemable after 5 years. The company decided to write-off discount on issue of such debentures over the life time of the Debentures. Show the items in the balance sheet of the company immediately after the issue of these debentures.

3. From the following information prepare the balance sheet of Gitanjali Ltd., as per the (Revised) Schedule VI:

   Inventories Rs. 14,00,000; Equity Share Capital Rs. 20,00,000; Plant and Machinery Rs. 10,00,000; Preference Share Capital Rs. 12,00,000; Debenture Redemption Reserve Rs. 6,00,000; Outstanding Expenses Rs. 3,00,000; Proposed Dividend Rs. 5,00,000; Land and Building Rs. 20,00,000; Current Investments Rs. 8,00,000; Cash Equivalent Rs. 10,00,000; Short term loan from Zaveri Ltd. (A Subsidiary Company of Twilight Ltd.) Rs. 4,00,000; Public Deposits Rs. 12,00,000.

4. From the following information prepare the balance sheet of Jam Ltd. as per the (revised) Schedule VI:

   Inventories Rs. 7,00,000; Equity Share Capital Rs. 16,00,000; Plant and Machinery Rs. 8,00,000; Preference Share Capital Rs. 6,00,000; General Reserves Rs. 6,00,000; Bills payable Rs. 1,50,000; Provision for taxation Rs. 2,50,000; Land and Building Rs. 16,00,000; Non-current Investments Rs. 10,00,000; Cash at Bank Rs. 5,00,000; Creditors Rs. 2,00,000; 12% Debentures Rs. 12,00,000.

5. Prepare the balance sheet of Jyoti Ltd. as at March 31, 2013 from the following information as per provisions of (Revised) Schedule VI of the companies Act, 1956:

   Building Rs. 10,00,000; Investments in the shares of Metro Tyers Rs. 3,00,000; Stores & Spares Rs. 1,00,000; Discount on issue of 10% debentures Rs. 10,000; Statement of Profit and Loss (Dr.) Rs. 90,000; 5,00,000 Equity Shares of Rs. 20 each fully paid-up; Capital Redemption ReserveRs. 1,00,000; 10% Debentures Rs. 3,00,000; Unpaid dividends Rs. 90,000; Share options outstanding account Rs. 10,000.

6. Brinda Ltd. has furnished the following information:

   (a) 25,000, 10% debentures of Rs. 100 each;

   (b) Bank Loan of Rs. 10,00,000 repayable after 5 years;

   (c) Interest on debentures is yet to be paid.

   Show the above items in the balance sheet of the company as at March 31, 2013.

7. Prepare a balance sheet of Black Swan Ltd., as at March 31, 2013 as per the provisions of Schedule VI of the companies Act, 1956 form the following information:

General Reserve	:	3,000
10% Debentures	:	3,000
Statement of Profit & Loss	:	1,200
Depreciation on fixed assets	:	700
Gross Block	:	9,000
Current Liabilities	:	2,500
Preliminary Expenses	:	300
6% Preference Share Capital	:	5,000
Cash & Cash Equivalents	:	6,100

Answers to Test your Understanding

Test your Understanding – I

1. (i) True (ii) True (iii) False (iv) False (v) True
2. (i) Basic sources (ii) Shareholders (iii) Accrual
   (iv) Balance sheet (v) Income.

Analysis of Financial Statements

4

You have learnt about the financial statements of companies. Basically, these are summarised financial reports which provide the operating results and financial position of companies, and the detailed information contained therein is useful for assessing the operational efficiency and financial soundness of a company. This requires proper analysis and interpretation of such information for which a number of techniques (tools) have been developed by financial experts. In this chapter we will have an overview of these techniques.

Learning Objectives

After studying this chapter, you will be able to :

- *explain the nature and significance of financial analysis;*
- *identify the objectives of financial analysis;*
- *describe the various tools of financial analysis;*
- *state the limitations of financial analysis;*
- *prepare comparative and commonsize statements and interpret the data given therein; and*
- *calculate the trend percentages and interpret them.*

4.1 Meaning of Analysis of Financial Statements

The process of critical evaluation of the financial information contained in the financial statements in order to understand and make decisions regarding the operations of the firm is called 'Financial Statement Analysis'. It is basically a study of relationship among various financial facts and figures as given in a set of financial statements, and the interpretation thereof to gain an insight into the profitability and operational efficiency of the firm to assess its financial health and future prospects.

The term 'financial analysis' includes both 'analysis and interpretation'. The term analysis means simplification of financial data by methodical classification given in the financial statements. Interpretation means explaining the meaning and significance of the data. These two are complimentary to each other. Analysis is useless without interpretation, and interpretation without analysis is difficult or even impossible.

Box

Financial statement analysis is a judgemental process which aims to estimate current and past financial positions and the results of the operation of an enterprise, with primary objective of determining the best possible estimates and predictions about the future conditions. It essentially involves regrouping and analysis of information provided by financial statements to establish relationships and throw light on the points of strengths and weaknesses of a business enterprise, which can be useful in decision-making involving comparison with other firms (cross sectional analysis) and with firms' own performance, over a time period (time series analysis).

4.2 Significance of Financial Analysis

Financial analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationships between the various items of the balance sheet and the statement of profit and loss. Financial analysis can be undertaken by management of the firm, or by parties outside the firm, viz. owners, trade creditors, lenders, investors, labour unions, analysts and others. The nature of analysis will differ depending on the purpose of the analyst. A technique frequently used by an analyst need not necessarily serve the purpose of other analyst because of the difference in the interests of the analysts. Financial analysis is useful and significant to different users in the following ways:

(a) *Finance manager:* Financial analysis focusses on the facts and relationships related to managerial performance, corporate efficiency, financial strengths and weaknesses and creditworthiness of the company. A finance manager must be well-equipped with the different tools of analysis to make rational decisions for the firm. The tools for analysis help in studying accounting data so as to determine the continuity of the operating policies, investment value of the business, credit ratings and testing the efficiency of operations. The techniques are equally important in the area of financial control, enabling the finance manager to make constant reviews of the actual financial operations of the firm to analyse the causes of major deviations, which may help in corrective action wherever indicated.

(b) *Top management:* The importance of financial analysis is not limited to the finance manager alone. Its scope of importance is quite broad which includes top management in general and other functional managers. Management of the firm would be interested in every aspect of the financial analysis. It is their overall responsibility to see that the resources of the firm are used most efficiently and that the firm's financial condition is sound. Financial analysis helps the management in measuring the success or otherwise of the company's operations, appraising the individual's performance and evaluating the system of internal control.

(c) *Trade payables:* Trade payables, through an analysis of financial statements, appraises not only the urgent ability of the company to meet its obligations, but also judges the probability of its continued ability to meet all its financial obligations in future. Trade payables are particularly interested in the firm's ability to meet their claims over a very short period of time. Their analysis will, therefore, confine to the evaluation of the firm's liquidity position.

(d) *Lenders:* Suppliers of long-term debt are concerned with the firm's long-term solvency and survival. They analyse the firm's profitability overtime, its ability to generate cash to be able to pay interest and repay the principal and the relationship between various sources of funds (capital structure relationships). Long-term tenders do analyse the historical financial statements. But they place more emphasis on the firm's projected financial statements to make analysis about its future solvency and profitability.

(e) *Investors:* Investors, who have invested their money in the firm's shares, are interested about the firm's earnings. As such, they concentrate on the analysis of the firm's present and future profitability. They are also interested in the firm's capital structure to ascertain its influences on firm's earning and risk. They also evaluate the efficiency of the management and determine whether a change is needed or not. However, in some large companies, the shareholders' interest is limited to decide whether to buy, sell or hold the shares.

(f) *Labour unions:* Labour unions analyse the financial statements to assess whether it can presently afford a wage increase and whether it can absorb a wage increase through increased productivity or by raising the prices.

(g) *Others:* The economists, researchers, etc. analyse the financial statements to study the present business and economic conditions. The government agencies need it for price regulations, taxation and other similar purposes.

4.3 Objectives of Financial Analysis

Analysis of financial statements reveals important facts concerning managerial performance and the efficiency of the firm. Broadly speaking, the objectives of the analysis are to apprehend the information contained in financial statements with a view to know the weaknesses and strengths of the firm and to make a forecast about the future prospects of the firm thereby, enabling the analysts to take decisions regarding the operation of, and further investment in the firm. To be more specific, the analysis is undertaken to serve the following purposes (objectives):

- to assess the current profitability and operational efficiency of the firm as a whole as well as its different departments so as to judge the financial health of the firm.
- to ascertain the relative importance of different components of the financial position of the firm.
- to identify the reasons for change in the profitability/financial position of the firm.
- to judge the ability of the firm to repay its debt and assessing the short-term as well as the long-term liquidity position of the firm.

Through the analysis of financial statements of various firms, an economist can judge the extent of concentration of economic power and pitfalls in the financial policies pursued. The analysis also provides the basis for many governmental actions relating to licensing, controls, fixing of prices, ceiling on profits, dividend freeze, tax subsidy and other concessions to the corporate sector.

4.4 Tools of Financial Analysis

The most commonly used techniques of financial analysis are as follows:

1. *Comparative Statements:* These are the statements showing the profitability and financial position of a firm for different periods of time in a comparative form to give an idea about the position of two or more periods. It usually applies to the two important financial statements, namely, Balance Sheet and Statement of Profit and Loss prepared in a comparative form. The financial data will be comparative only when same accounting principles are used in preparing these statements. If this is not the case, the deviation in the use of accounting principles should be mentioned as a footnote. Comparative figures indicate the trend and direction of financial position and operating results. This analysis is also known as 'horizontal analysis'.

2. *Common Size Statements:* These are the statements which indicate the relationship of different items of a financial statement with some common item by expressing each item as a percentage of that common item. The percentage thus calculated can be easily compared with the results of corresponding percentages of the previous year or of some other firms, as the numbers are brought to common base. Such statements also allow an analyst to compare the operating and financing characteristics of two companies of different sizes in the same industry. Thus, common-size

statements are useful, both, in intra-firm comparisons over different years and also in making inter-firm comparisons for the same year or for several years. This analysis is also known as 'Vertical analysis'.

3. *Trend Analysis:* It is a technique of studying the operational results and financial position over a series of years. Using the previous years' data of a business enterprise, trend analysis can be done to observe the percentage changes over time in the selected data. The trend percentage is the percentage relationship, which each item of different years bear to the same item in the base year. Trend analysis is important because, with its long run view, it may point to basic changes in the nature of the business. By looking at a trend in a particular ratio, one may find whether the ratio is falling, rising or remaining relatively constant. From this observation, a problem is detected or the sign of good or poor management is detected.

4. *Ratio Analysis:* It describes the significant relationship which exists between various items of a balance sheet and a profit and loss account of a firm. As a technique of financial analysis, accounting ratios measure the comparative significance of the individual items of the income and position statements. It is possible to assess the profitability, solvency and efficiency of an enterprise through the technique of ratio analysis.

5. *Cash Flow Analysis:* It refers to the analysis of actual movement of cash into and out of an organisation. The flow of cash into the business is called as cash inflow or positive cash flow and the flow of cash out of the firm is called as cash outflow or a negative cash flow. The difference between the inflow and outflow of cash is the net cash flow. Cash flow statement is prepared to project the manner in which the cash has been received and has been utilised during an accounting year as it shows the sources of cash receipts and also the purposes for which payments are made. Thus, it summarises the causes for the changes in cash position of a business enterprise between dates of two balance sheets.

In this chapter, we shall have a brief idea about the first three techniques, viz. comparative statements common size statements and trend analysis. The ratio analysis and cash flow analysis is covered in detail in chapters 5 and 6 respectively.

Test your Understanding – I

Fill in the blanks with appropriate word(s),

1. Analysis simply means——————data.
2. Interpretation means ——————data.
3. Comparative analysis is also known as ——————— analysis.
4. Common size analysis is also known as ——————— analysis.
5. The analysis of actual movement of money inflow and outflow in an organisation is called——————— analysis.

4.5 Comparative Statements

As stated earlier, these statements refer to the statement of profit and loss and the balance sheet prepared by providing columns for the figures for both the current year as well as for the previous year and for the changes during the year, both in absolute and relative terms. As a result, it is possible to find out not only the balances of accounts as on different dates and summaries of different operational activities of different periods, but also the extent of their increase or decrease between these dates. The figures in the comparative statements can be used for identifying the direction of changes and also the trends in different indicators of performance of an organisation.

The following steps may be followed to prepare the comparative statements:

Step 1 : List out absolute figures in rupees relating to two points of time (as shown in columns 2 and 3 of Figure 4.1).

Step 2 : Find out change in absolute figures by subtracting the first year (Col.2) from the second year (Col.3) and indicate the change as increase (+) or decrease (–) and put it in column 4.

Step 3 : Preferably, also calculate the percentage change as follows and put it in Column 5.

$$\frac{\text{Second year absolute figure (Col.3)}}{\text{First year absolute figure (Col.2)}} \quad 100$$

Particulars	First Year	Second Year	Absolute Increase (+) or Decrease (–)	Percentage Increase (+) or Decrease (–)
1	2	3	4	5
	Rs.	**Rs.**	**Rs.**	**%.**

Fig. 4.1

Illustration 1

Convert the following statement of profit and loss into the comparative statement of profit and loss of BCR Co. Ltd.:

Particulars	*Note No.*	*31 March 2013*	*31 March 2014*
(i) Revenue from operations		60,00,000	75,00,000
(ii) Other incomes		1,20,000	1,50,000
(iii) Expenses		50,60,000	44,00,000
(iv) Income tax		40%	35%

Solution:

Comparative statement of profit and loss for the year ended March 31, 2013 and 2014:

Particulars	*2014*	*2013*	*Absolute Increase (+) or Decrease (-)*	*Percentage Increase (+) or Decrease (-)*
	Rs.	**Rs.**	**Rs.**	**Rs.**
I. Revenue from operations	75,00,000	60,00,000	15,00,000	25.00
II. Add: Other incomes	1,20,000	1,50,000	(30,000)	(20.00)
III. Total Revenue I+II	**76,20,00**	**61,50,000**	**14,70,000**	**23.90**
IV Less: Expenses	50,60,000	44,00,000	6,60,000	15.00
Profit before tax	**25,60,000**	**17,50,000**	**8,10,000**	**46.29**
V Less: Tax	10,24,000	6,12,500	4,11,500	67.18
Profit after tax	**15,36,000**	**11,37,500**	**3,98,500**	**35.03**

Illustration 2

From the following statement of profit and loss of Madhu Co. Ltd., prepare comparative statement of profit and loss for the year ended March 31, 2013 and 2014:

Particulars	*Note No.*	*31 March 2013*	*31 March 2014*
		Rs.	Rs.
Revenue from operations		16,00,000	20,00,000
Employee benefit expenses		8,00,000	10,00,000
Other expenses		2,00,000	1,00,000
Tax rate 40 %			

Solution:

Comparative statement of profit and loss of Madhu Co. Ltd., for the year ended March 31, 2013 and 2014:

Particulars		*2014*	*2013*	*Absolute Increase (+) or Decrease (-)*	*Percentage Increase (+) or Decrease (-)*
		Rs.	**Rs.**	**Rs.**	**%**
I.	Revenue from operations	**20,00,000**	**16,00,000**	**4,00,000**	**25**
II.	Less: Expenses				
a)	Employee benefit expenses	10,00,000	8,00,000	2,00,000	25
b)	Other expenses	1,00,000	2,00,000	(1,00,000)	(50)
	Profit before tax	**9,00,000**	**6,00,000**	**3,00,000**	**50**
III.	Less tax @ 40%	3,60,000	2,40,000	1,20,000	50
	Profit after tax	**5,40,000**	**3,60,000**	**1,80,000**	**50**

Do it yourself

From the following particulars, prepare comparative statement of profit and loss of Narang Colors Ltd. for the year ended March 31, 2013 and 2014:

Particulars	Note No.	2014	2013
1. Revenue from operations		40,00,000	35,00,000
2. Other income		50,000	50,000
3. Cost of material consumed		15,00,000	18,00,000
4. Changes in inventories of finished goods		10,000	(15,000)
5. Employee benefit expenses		2,40,000	2,40,000
6. Depreciation and amortisation		25,000	22,500
7. Other expenses		2,66,000	3,02,000
8. Profit		20,09,000	14.27,300

Notes to Accounts

Particulars	2014	2013
1. Other expenses		
i) Power and fuel	36,000	40,000
ii) Carriage outwards	7,500	9,500
iii) License fees	2,500	2,500
iv) Selling and distribution	1,70,000	1,90,000
v) Provision of tax	50,000	60,000
	2,66,000	**3,02,000**

Illustration 3

The following are the excerpts of balance sheets of J. Ltd. for the year ended March 31, 2013 and 2014. Prepare a Comparative balance sheet and comment on the financial position of the business firm.

Particulars	Note No.	2014 (Rs.)	2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		20,00,000	15,00,000
b) Reserve and surplus		3,00,000	4,00,000
2. Non-current Liabilities			
a) Long-term borrowings		9,00,000	6,00,000
3. Current liabilities			
a) Trade payables		3,00,000	2,00,000
Total		**35,00,000**	**27,00,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
- Tangible assets		20,00,000	15,00,000
- Intangible assets		9,00,000	6,00,000
b) Current assets			
- Inventories		3,00,000	4,00,000
- Cash and cash equivalents		3,00,000	2,00,000
2. Current assets			
Total		**35,00,000**	**27,00,000**

Solution:

Comparative balance sheet of J. Ltd. as at March 2013 and March 2014:

(Figure in Lakhs)

Particulars	2014	2013	Absolute Change	Percentage Change
I. Equity and Liabilities				
1. Shareholders' Funds				
a) Share capital	20	15	05	33.33
b) Reserve and surplus	03	04	01	(25)
2. Non-current Liabilities				
a) Long-term borrowings	09	06	03	50
3. Current liabilities				
a) Trade payables	03	02	01	50
Total	**35**	**27**	**08**	**29.63**

II. Assets				
1. Non-current assets				
a) Fixed assets				
- Tangible assets	20	15	05	33.33
- Intangible assets	09	06	03	50
b) Current assets				
- Inventories	03	04	(01)	(25)
- Cash and cash equivalents	03	02	01	50
Total	**35**	**27**	**08**	**29.63**

Illustration 4

From the following balance sheets of Amrit Ltd., as on March 31, 2013 and 2014, prepare a comparative balance sheet:

Particulars	Note No.	2014 (Rs.)	2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		20,00,000	15,00,000
b) Reserve and surplus		3,00,000	4,00,000
2. Non-current Liabilities			
a) Long-term borrowings		9,00,000	6,00,000
3. Current liabilities			
a) Trade payables		3,00,000	2,00,000
Total		**35,00,000**	**27,00,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
- Tangible assets		20,00,000	15,00,000
- Intangible assets		9,00,000	6,00,000
b) Current assets			
- Inventories		3,00,000	4,00,000
- Cash and cash equivalents		3,00,000	2,00,000
2. Current assets			
Total		**35,00,000**	**27,00,000**

Solution:

Comparative Balance Sheet of Star Ltd.
as at March 31st, 2013 and March 31st , 2014

Rs. in Lakhs

Particulars	*2014* Rs.	*2013* Rs.	*Absolute Increase (+) or Decrease (-)* Rs.	*Percentage Increase (+) or Decrease (-)* Rs.
I. Equity and Liabilities				
1) Shareholders' funds				
a) Share capital	20	15	5	33.33
b) Reserves and surplus	3	4	(1)	(25)
2) Non-current liabilities				
Long-term borrowings	9	6	3	50
3) Current liabilities				
Trade payables	3	2	1	50
Total	**35**	**27**	**8**	**29.6**
II. Assets				
1) Non-current assets				
Fixed assets				
a) Tangible assets	20	15	5	33.33
b) Intangible assets	9	6	3	50
2) Current assets				
a) Inventories	3	4	(1)	(25)
b) Cash and cash equivalents	3	2	1	50
Total	**35**	**27**	**8**	**29.6**

Do it yourself

From the Balance Sheets for the year ended March 31, 2013 and 2014, prepare the comparative Balance Sheet of Omega Chemicals Ltd.:

Rs. in Lakhs

Particulars	*Note No.*	*2013 (Rs.)*	*2014 (Rs.)*
I. Equity and Liabilities			
1) Shareholder's Fund			
a) Share capital		5	10
b) Reserves and surplus		3	2
2) Non-current liabilities			
a) Long-term borrowings		5	8
3) Current liabilities			
Trade Payable		2	4
Total		**15**	**24**

II. Assets			
1) Non-current assets			
a) Fixed assets			
- Tangible assets		14	8
- Intangible assets		3	2
2) Current assets			
a) Inventories		5	4
b) Cash and cash equivalents		2	1
Total		**24**	**15**

4.6 Common Size Statement

Common Size Statement, also known as component percentage statement, is a financial tool for studying the key changes and trends in the financial position and operational result of a company. Here, each item in the statement is stated as a percentage of the aggregate, of which that item is a part. For example, a common size balance sheet shows the percentage of each asset to the total assets, and that of each liability to the total liabilities. Similarly, in the common size income statement, the items of expenditure are shown as a percentage of the net sales. If such a statement is prepared for successive periods, it shows the changes of the respective percentages over time.

Common size analysis is of immense use for comparing enterprises which differ substantially in size as it provides an insight into the structure of financial statements. Inter-firm comparison or comparison of the company's position with the related industry as a whole is possible with the help of common size statement analysis.

The following procedure may be adopted for preparing the common size statements.

1. List out absolute figures in rupees at two points of time, say year 1, and year 2 (Column 2 & 4 of figure 4.2).
2. Choose a common base (as 100). For example, Sales revenue total may be taken as base (100) in case of income statement, and total assets or total liabilities (100) in case of balance sheet.
3. For all items of Col. 2 and 4 work out the percentage of that total. Column 3 and 5 shows these percentages in Figure 4.2.

Common Size Statement

Particulars	Year one	Year two	Percentage of year 1	Percentage of year 2
1	2	3	4	5

Figure 4.2

Illustration 5

From the following information, prepare a Common-size Statement of profit and loss for the year ended March 31, 2013 and 2014:

Particulars	*March 31, 2013* Rs.	*March 31, 2014* Rs.
Net sales	18,00,000	25,00,000
Cost of good sold	10,00,000	12,00,000
Operating expenses	80,000	1,20,000
Non-operating expenses	12,000	15,000
Depreciation**	20,000	40,000
Wages	10,000	20,000

Solution:

Common-Size income statement for the year ended March 31, 2013 and March 31, 2014:

Particulars	absolute Amounts		Percentage of Net Sales	
	31.03.2014	31.03.2013	31.03.2014 (%)	31.03.2013 (%)
Net Sales	25,00,000	18,00,000	100	100
(Less) Cost of goods Sold	12,00,000	10,00,000	48	55.56
Gross Profit	**13,00,000**	**8,00,000**	**52**	**44.44**
(Less) Operating Expenses	1,20,000	80,000	4.80	4.44
Operating Income	**11,80,000**	**72,20,000**	**47.20**	**40**
(Less) Non-Operating expenses	15,000	12,000	0.60	0.67
Profit	**11,65,000**	**7,08,000**	**46.60**	**39.33**

* Wages is the part of cost of goods sold;
** Depreciation is the part of operating expenses.

Illustration 6

From the following information, prepare common-size statement of profit and loss for the year ended March 31, 2013 and March 31, 2014:

Particulars	*March, 2014* Rs.	*March, 2013* Rs.
Revenue from operations	25,00,000	20,00,000
Other income	3,25,000	2,50,000

Employee benefit expenses	8,25,000	4,50,000
Other expenses	2,00,000	1,00,000
Income tax (% of the profit before tax)	30%	20%

Solution:

Common-size statement of profit and loss for the year ended March 31, 2013 and March 31, 2014:

Particulars	absolute Amounts		Percentage of Net Sales	
	31.03.2014 (%)	31.03.2013 (%)	31.03.2014 (%)	31.03.2013 (%)
Revenue from Operations	25,00,000	20,00,000	100	100
(Add) Other income	3,25,000	2,50,000	13	12.5
Total revenue	28,25,000	22,50,000	113	112.5
(Less) expenses:				
a) Employee benefit expenses	8,25,000	4,50,000	33	22.5
b) Other expenses	2,00,000	1,00,000	8	5
Profit before tax	18,00,000	17,00,000	72	85
(Less) taxes	5,40,000	3,40,000	21.6	17
Profit after tax	12,60,000	13,60,000	50.4	68

Illustration 7

Prepare common-size balance sheet of XRI Ltd. from the following information:

Particulars	*Note No.*	*March 31 2014*	*March 31 2013*
I. Equity and Liabilities			
1. Shareholder's Fund			
a) Share capital		15,00,000	12,00,000
b) Reserves and surplus		5,00,000	5,00,000
2. Non-current liabilities			
a) Long-term borrowings		6,00,000	5,00,000
3. Current liabilities			
a) Trade Payable		15,50,000	10,50,000
Total		**32,50,000**	**32,50,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
- Tangible asset			
Plant & machinery		15,00,000	10,00,000
- Intangible assets			
Goodwill		15,00,000	10,00,000
b) Non-current investments		10,00,000	10,00,000
2. Current assets			
a) Inventories		1,50,000	2,50,000
Total		**32,50,000**	**32,50,000**

Solution:

Common-size statement of profit and loss for the year ended March 31st , 2013 and March 31st , 2014:

Particulars	Absolute Amounts		Percentage of Net Sales	
	31.03.2014	31.03.2013	31.03.2014 (%)	31.03.2013 (%)
I. Equity and Liabilities				
1. Shareholders fund				
a) Share capital	15,00,000	12,00,000	36.14	36.93
b) Reserve and surplus	5,00,000	5,00,000	12.05	15.38
2. Non-current liabilities				
a) Long-term borrowings	6,00,000	5,00,000	14.46	15.38
3. Current liabilities				
a) Trade payables	15,50,000	10,50,000	37.35	32.31
Total	**41,50,000**	**32,50,000**	**100**	**100**
II. Assets				
1. Non-current assets				
a) Fixed assets				
- Tangible asset				
Plant & machinery	14,00,000	8,00,000	33.73	24.61
- Intangible assets				
Goodwill	16,00,000	12,00,000	38.55	36.92
2. Non-current investments	10,00,000	10,00,000	24.10	30.77
a) Current assets				
- Inventories	1,50,000	2,50,000	3.62	7.69
Total	**41,50,000**	**32,50,000**	**100**	**100**

Do it yourself

Prepare common-size balance sheet of Raj Co. Ltd. as at March 31, 2013 and March 31, 2014 from the given information:

Particulars	2014	2013
I. Equity and Liabilities		
1. Shareholders fund		
a) Share capital	20,00,000	15,00,000
b) Reserve and surplus	3,00,000	4,00,000
2. Non-current liabilities		
a) Long-term borrowings	9,00,000	6,00,000
3. Current liabilities		
a) Trade payables	3,00,000	2,00,000
Total	**35,00,000**	**27,00,000**

II. Assets		
1. Non-current assets		
a) Fixed assets		
- Tangible assets	20,00,000	15,00,000
- Intangible assets	9,00,000	6,00,000
b) Current assets		
- Inventories	3,00,000	4,00,000
- Cash and cash equivalents	3,00,000	2,00,000
Total	**35,00,000**	**27,00,000**

Test your Understanding – II

Choose the right answer :

1. The financial statements of a business enterprise include:
   (a) Balance sheet
   (b) Profit and loss account
   (c) Cash flow statement
   (d) All the above
2. The most commonly used tools for financial analysis are:
   (a) Horizontal analysis
   (b) Vertical analysis
   (c) Ratio analysis
   (d) All the above
3. An Annual Report is issued by a company to its:
   (a) Directors
   (b) Auditors
   (c) Shareholders
   (d) Management
4. Balance Sheet provides information about financial position of the enterprise:
   (a) At a point in time
   (b) Over a period of time
   (c) For a period of time
   (d) None of the above
5. Comparative statement are also known as:
   (a) Dynamic analysis
   (b) Horizontal analysis
   (c) Vertical analysis
   (d) External analysis

4.7 Trend Analysis

The financial statements may be analysed by computing trends of series of information. Trend analysis determines the direction upwards or downwards and involves the computation of the percentage relationship that each item bears to the same item in the base year. In case of comparative statement, an item is compared with itself in the previous year to know whether it has increased or decreased or remained constant. Common size is observed to know whether the proportion of an item (say cost of goods sold) is increasing or decreasing in the common base (say sales). But in case of trend analysis, we learn about the behaviour of the same item over a given period, say, during the last 5 years. Take for example, administrative expenses, whether they are exhibiting increasing tendency or decreasing tendency or remaining constant over the period of comparison, generally trend analysis is done for a reasonably long period. Many companies present their financial data for a period of 5 or 10 years in various forms in their annual reports.

4.7.1 Procedure for Calculating Trend Percentage

One year is taken as the base year. Generally, the first year is taken as the base year. The figure of base year is taken as 100. The trend percentages are calculated in relation to this base year. If a figure in other year is less than the figure in base year, the trend percentage will be less than 100 and it will be more than 100 if figure is more than the base year figure. Each year's figure is divided by the base year figure.

$$\text{Trend Percentage} = \frac{\text{Present year value}}{\text{Base year value}} \times 100$$

The accounting procedures and conventions used for collecting data and preparation of financial statements should be similar; otherwise the figures will not be comparable.

Illustration 7

Calculate the trend percentages from the following figures of sales, stock and profit of X Ltd., taking 2010 as the base year and interpret them.

(Rs. in lakhs)

Year	*Sales (Rs.)*	*Stock (Rs.)*	*Profit before tax (Rs.)*
2010	1,881	709	321
2011	2,340	781	435
2012	2,655	816	458
2013	3,021	944	527
2014	3,768	1,154	627

Solution:

Trend Percentages (base year 2010 = 100)

(Rs. in lakhs)

Year	*Sales Rs.*	*Trend %*	*Stock Rs.*	*Trend %*	*Profit Rs.*	*Trend %*
2010	1881	100	709	100	321	100
2011	2340	124	781	110	435	136
2012	2655	141	816	115	458	143
2013	3021	161	944	133	527	164
2014	3768	200	1154	163	627	195

Interpretation :

1. The sales have continuously increased in all the years up to 2014, though in different proportions. The percentage in 2014 is 200 as compared to 100 in 2010. The increase in sales is quite satisfactory.
2. The figures of stock have also increased over a period of five years. The increase in stock is more in 2013 and 2014 as compared to earlier years.
3. Profit has substantially increased. The profits have increased in greater proportion than sales which implies that the company has been able to reduce their cost of goods sold and control the operating expenses.

Do it Yourself

The following data is available from the Statement of profit and loss of Deepak Ltd.

Particulars	*2010 (Rs.)*	*2011 (Rs.)*	*2012 (Rs.)*	*2013 (Rs.)*
Sales	3,10,000	3,27,500	3,20,000	3,32,500
Wages	1,07,500	1,07,500	1,15,000	1,20,000
Selling Expenses	27,250	29,000	29,750	27,750
Gross Profit	90,000	95,000	77,500	80,000

You are required to show Trend Percentages of different items.

Illustration 8

From the following data relating to the assets side of Balance Sheet of ABC Ltd., for the period ended March 31, 2011 to March 31, 2014, calculate trend percentages.

(Rs. in Lakhs)

Particulars	2011	2012	2013	2014
Cash	100	120	80	140
Debtors	200	250	325	400
Stock	300	400	350	500
Other current assets	50	75	125	150
Land	400	500	500	500
Buildings	800	1000	1200	1500
Plant	1000	1000	1200	1500

Solution:

Trend Percentages

(Rs. in lakhs)

Assets	*2011 %*	*Trend*	*2012 %*	*Trend*	*2013*	*Trend %*	*2014*	*Trend %*
Current Assets								
Cash	100	100	120	120	80	80	140	140
Debtors	200	100	250	125	325	162.5	400	200
Stock	300	100	400	133.33	350	116.67	500	166.67
Other Current Assets	50	100	75	150	125	250	150	300
	650	**100**	**845**	**130**	**880**	**135.38**	**1,190**	**183.08**
Fixed Assets								
Land	400	100	500	125	500	125	500	125
Buildings	800	100	1,000	125	1,200	150	1,500	187.5
Plant	1000	100	1,000	100	1,200	120	1,500	150
	2,200	**100**	**2,500**	**113.64**	**2,900**	**131.82**	**3,500**	**159.00**
Total Assets	**2,850**	**100**	**3,345**	**117.36**	**3,780**	**132.63**	**4,690**	**164.56**

Interpretation:

1. The assets have exhibited a continuous increasing trend over the period.
2. The current assets increased much faster than the fixed assets.
3. Sundry debtors and other current assets and buildings have shown higher growth.

Illustration 9

From the following data relating to the liabilities side of balance sheet of X Ltd., for the period March 31, 2010 to 2013, calculate the trend percentages taking 2010 as the base year.

(Rs. in lakhs)

Liabilities	*2010*	*2011*	*2012*	*2013*
Equity Share Capital	1,000	1,000	1,200	1,500
General Reserve	800	1,000	1,200	1,500
12% Debentures	400	500	500	500
Bank Overdraft	300	400	550	500
Bills Payable	100	120	80	140
Sundry Creditors	300	400	500	600
Outstanding Liabilities	50	75	125	150

Solution:

Trend Percentages

(Rs. in Lakhs)

Liabilities	*2010 %*	*Trend*	*2011 %*	*Trend*	*2012*	*Trend %*	*2013*	*Trend %*
Shareholder Funds								
Equity Share Capital	1,000	100	1,000	100	1200	120	1,500	150
General Reserve	800	100	1,000	125	1200	150	1,500	187.5
	1,800	**100**	**2,000**	**111.11**	**2400**	**133.33**	**3,000**	**166.67**
Long-term Debts								
Debentures	400	100	500	125	500	125	500	125
	400	**100**	**500**	**125**	**500**	**125**	**500**	**125**
Current Liabilities								
Bank Overdraft	300	100	400	133.33	550	183.33	500	166.67
Bills Payable	100	100	120	120	80	80	140	140
Sundry Creditors	300	100	400	133.33	500	166.67	600	200
Outstanding Expenses	50	100	75	150	125	250	150	300
	750	**100**	**995**	**132.67**	**1,255**	**167.33**	**1,390**	**185.33**
Total (Liabilities)	**2,950**	**100**	**3,495**	**118.47**	**4,155**	**140.85**	**4,890**	**165.76**

Interpretation:

1. Shareholders' funds have increased over the period because of retention of profits in the business in the form of reserves, and the share capital has also increased, may be due to issue of fresh shares or bonus shares.
2. The increase in current liabilities is more than that of long-term debt. This may be due to expansion of business and/or availability of greater credit activities.

Test your Understanding – III

State whether each of the following is True or False :

(a) The financial statements of a business enterprise include cash flow statement.
(b) Comparative statements are the form of horizontal analysis.
(c) Common size statements and financial ratios are the two tools employed in vertical analysis.
(d) Ratio analysis establishes relationship between two financial statements.
(e) Ratio analysis is a tool for analysing the financial statements of any enterprise.
(f) Financial analysis is used only by the creditors.
(g) Statement of profit and loss account shows the operating performance of an enterprise for a period of time.
(h) Financial analysis helps an analyst to arrive at a decision.
(i) Cash Flow Statement is a tool of financial statement analysis.
(j) In a Common size statement each item is expressed as a percentage of some common base.

4.8 Limitations of Financial Analysis

Though financial analysis is quite helpful in determining financial strengths and weaknesses of a firm, it is based on the information available in financial statements. As such, the financial analysis also suffers from various limitations of financial statements. Hence, the analyst must be conscious of the impact of price level changes, window dressing of financial statements, changes in accounting policies of a firm, accounting concepts and conventions, personal judgement, etc. Some other limitations of financial analysis are:

1. Financial analysis does not consider price level changes.
2. Financial analysis may be misleading without the knowledge of the changes in accounting procedure followed by a firm.
3. Financial analysis is just a study of reports of the company.
4. Monetary information alone is considered in financial analysis while non-monetary aspects are ignored.

5. The financial statements are prepared on the basis of on-going concept, as such, it does not reflect the current position.

Terms Introduced in the Chapter

1. Financial Analysis
2. Common Size Statements
3. Comparative Statements
4. Trend Analysis
5. Ratio Analysis
6. Cash Flow Analysis
7. Intra Firm Comparison
8. Inter Firm Comparison
9. Horizontal Analysis
10. Vertical Analysis

Summary

Major Parts of an Annual Report

An annual report contains basic financial statements, viz. Balance Sheet, Profit and Loss Account and Cash Flow Statement. It also carries management's discussion of corporate performance of the year under review and peeps into the future prospects.

Tools of Financial Analysis

Commonly used tools of financial analysis are: Comparative statements, Common size statement, trend analysis, ratio analysis, funds flow analysis and cash flow analysis.

Comparative Statement

Comparative statement captures changes in all items of financial statements in absolute and percentage terms over a period of time for a firm or between two firms.

Common Size Statement

Common size statement expresses all items of a financial statement as a percentage of some common base such as revenue from operations for statement of profit and loss and total assets for balance sheet.

Ratio Analysis

Ratio analysis is a tool of financial analysis which involves the methods of calculating and interpreting financial ratios in order to assess the strengths and weaknesses in the performance of a business enterprise.

Question for Practice

Short Answer Questions

1. List the techniques of Financial Statement Analysis.
2. Distinguish between Vertical and Horizontal Analysis of financial data.
3. State the meaning of Analysis and Interpretation.
4. State the importance of Financial Analysis?
5. What are Comparative Financial Statements?
6. What do you mean by Common Size Statements?

Long Answer Questions

1. Describe the different techniques of financial analysis and explain the limitations of financial analysis.
2. Explain the usefulness of trend percentages in interpretation of financial performance of a company.
3. What is the importance of comparative statements? Illustrate your answer with particular reference to comparative income statement.
4. What do you understand by analysis and interpretation of financial statements? Discuss its importance.
5. Explain how common size statements are prepared giving an example.

Numerical Questions

1. Following are the balance sheets of Alpha Ltd. as at March 31st, 2013 and 2014:

Particulars	*2013* Rs.	*2014* Rs.
I. Equity and Liabilities		
Equity share capital	2,00,000	4,00,000
Reserves and surplus	1,00,000	1,50,000
Long-term borrowings	2,00,000	3,00,000
Short-term borrowings	50,000	70,000
Trade payables	30,000	60,000
Short-term provisions	20,000	10,000
Other current liabilities	20,000	30,000
Total	**6,20,000**	**10,20,000**
II. Assets		
Fixed assets	2,00,000	5,00,000
Non-current investments	1,00,000	1,25,000
Current investments	60,000	80,000

Inventories	1,35,000	1,55,000
Trade receivables	60,000	90,000
Short term loans and advances	40,000	60,000
Cash at bank	25,000	10,000
Total	**6,20,000**	**10,20,000**

You are required to prepare a Comparative balance sheet.

2. Following are the balance sheets of Beta Ltd. at March 31st, 2013 and 2014:

Particulars	*2014 (Rs.)*	*2013 (Rs.)*
I. Equity and Liabilities		
Equity share capital	4,00,000	3,00,000
Reserves and surplus	1,50,000	1,00,000
Loan from IDBI	3,00,000	1,00,000
Short-term borrowings	70,000	50,000
Trade payables	60,000	30,000
Short-term provisions	10,000	20,000
Other current liabilities	1,10,000	1,00,000
Total	**11,00,000**	**7,00,000**
II. Assets		
Fixed assets	4,00,000	2,20,000
Non-current investments	2,25,000	1,00,000
Current investments	80,000	60,000
Stock	1,05,000	90,000
Trade receivables	90,000	60,000
Short-term loans and advances	1,00,000	85,000
Cash and cash equivalents	1,00,000	85,000
Total	**11,00,000**	**7,00,000**

3. Prepare Comparative Income Statement from the following information:

Particulars	*2014 (Rs.)*	*2013 (Rs.)*
Freight Outward	20,000	10,000
Wages (office)	10,000	5,000
Manufacturing Expenses	50,000	20,000

Stock adjustment	(60,000)	30,000
Cash purchases	80,000	60,000
Credit purchases	60,000	20,000
Returns inward	8,000	4,000
Gross profit	(30,000)	90,000
Carriage outward	20,000	10,000
Machinery	3,00,000	2,00,000
Charge 10% depreciation on machinery	10,000	5,000
Interest on short-term loans	20,000	20,000
10% debentures	20,000	10,000
Profit on sale of furniture	20,000	10,000
Loss on sale of office car	90,000	60,000
Tax rate	40%	50%

4. Prepare Comparative Income Statement from the following information:

Particulars	*2013 (Rs.)*	*2014 (Rs.)*
Manufacturing expenses	35,000	80,000
Opening stock	30,000	60% of closing stock
Sales	9,60,000	4,50,000
Returns outward	4,000 (out of credit purchase)	6,000 (out of cash purchase)
Closing stock	150% of opening stock	1,00,000
Credit purchases	1,50,000	150% of cash purchase
Cash purchases	80% of credit purchases	40,000
Carriage outward	10,000	30,000
Building	1,00,000	2,00,000
Depreciation on building	20%	10%
Interest on bank overdraft	5,000	-
10% debentures	2,00,000	20,00,000
Profit on sale of copyright	10,000	20,000
Loss on sale of personal car	10,000	20,000
Other operating expenses	20,000	10,000
Tax rate	50%	40%

5. Prepare a Common-size income statement of Shefali Ltd. with the help of following information:

Particulars	*2013 (Rs.)*	*2014 (Rs.)*
Sales	6,00,000	8,00,000
Gross profit	50% of sales	45% of sales
Indirect expense	25% of gross profit	25% of gross profit
Less: Cost of goods sold	4,28,000	7,28,000
Other incomes	10,000	12,000
Income tax	30%	30%

6. Prepare a Common Size balance sheet from the following balance sheet of Aditya Ltd. and Anjali Ltd.:

Particulars	*Aditya Ltd.* Rs.	*Anjali Ltd.* Rs.
I. Equity and Liabilities		
a) Equity share capital	6,00,000	8,00,000
b) Reserves and surplus	3,00,000	2,50,000
c) Current liabilities	1,00,000	1,50,000
Total	**10,00,000**	**12,00,000**
II. Assets		
a) Fixed assets	4,00,000	7,00,000
b) Current assets	6,00,000	5,00,000
Total	**1,00,0000**	**12,00,000**

Answers to Test your Understanding

Test your Understanding – I

1. Simplification 2. explaining 3. the impact of horizontal
4. vertical 5. cash flow.

Test your Understanding – II

1 (d) 2 (d) 3 (c) 4 (a) 5 (b)

Test your Understanding – III

(a) True (b) True (c) True (d) True (e) True (f) False
(g) True (h) True (i) True (j) True

Accounting Ratios

5

Financial statements aim at providing financial information about a business enterprise to meet the information needs of the decision-makers. Financial statements prepared by a business enterprise in the corporate sector are published and are available to the decision-makers. These statements provide financial data which require analysis, comparison and interpretation for taking decision by the external as well as internal users of accounting information. This act is termed as financial statement analysis. It is regarded as an integral and important part of accounting. As indicated in the previous chapter, the most commonly used techniques of financial statements, analysis are comparative statements, common size statements, trend analysis, accounting ratios and cash flow analysis. The first three have been discussed in detail in the previous chapter. This chapter covers the technique of accounting ratios for analysing the information contained in financial statements for assessing the solvency, efficiency and profitability of the enterprises.

LEARNING OBJECTIVES

After studying this chapter, you will be able to :

- *Explain the meaning, objectives and limitations of analysis using accounting ratios;*
- *Identify the various types of ratios commonly used ;*
- *Calculate various ratios to assess solvency, liquidity, efficiency and profitability of the firm;*
- *Interpret the various ratios calculated for intra-firm and inter-firm comparisons.*

5.1 Meaning of Accounting Ratios

As stated earlier, accounting ratios are an important tool of financial statements analysis. A ratio is a mathematical number calculated as a reference to relationship of two or more numbers and can be expressed as a fraction, proportion, percentage and a number of times. When the number is calculated by referring to two accounting numbers derived from the financial statements, it is termed as accounting ratio. For example, if the gross profit of the business is Rs. 10,000 and the 'Revenue from Operations' are Rs. 1,00,000, it can be said that the gross profit is 10% (10,000/1,00,000) of the 'Revenue from Operations' . This ratio is termed as gross profit ratio. Similarly, inventory turnover ratio may be 6 which implies that inventory turns into 'Revenue from Operations' six times in a year.

It needs to be observed that accounting ratios exhibit relationship, if any between accounting numbers extracted from financial statements, they are essentially derived numbers and their efficacy depends a great deal upon the basic numbers from which they are calculated. Hence, if the financial statements contain some errors, the derived numbers in terms of ratio analysis would also present an erroneous scenerio. Further, a ratio must be calculated using numbers which are meaningfully correlated. A ratio calculated by using two unrelated numbers would hardly serve any purpose. For example, the furniture of the business is Rs. 1,00,000 and Purchases are Rs. 3,00,000. The ratio of purchases to furniture is 3 (3,00,000/1,00,000) but it hardly has any relevance. The reason is that there is no relationship between these two aspects.

5.2 Objectives of Ratio Analysis

Ratio analysis is indispensable part of interpretation of results revealed by the financial statements. It provides users with crucial financial information and points out the areas which require investigation. Ratio analysis is a technique which involves regrouping of data by application of arithmetical relationships, though its interpretation is a complex matter. It requires a fine understanding of the way and the rules used for preparing financial statements. Once done effectively, it provides a wealth of information which helps the analyst:

1. To know the areas of the business which need more attention;
2. To know about the potential areas which can be improved with the effort in the desired direction;
3. To provide a deeper analysis of the profitability, liquidity, solvency and efficiency levels in the business;
4. To provide information for making cross sectional analysis by comparing the performance with the best industry standards; and
5. To provide information derived from financial statements useful for making projections and estimates for the future.

5.3 Advantages of Ratio Analysis

The ratio analysis if properly done improves the user's understanding of the efficiency with which the business is being conducted. The numerical relationships throw light on many latent aspects of the business. If properly analysed, the ratios make us understand various problem areas as well as the bright spots of the business. The knowledge of problem areas help management take care of them in future. The knowledge of areas which are working better helps you improve the situation further. It must be emphasised that ratios are means to an end rather than the end in themselves. Their role is essentially indicative and that of a whistle blower. There are many advantages derived from ratio analysis. These are summarised as follows:

1. *Helps understand efficacy of decisions:* The ratio analysis helps you understand whether the business firm has taken the right kind of operating, investing and financing decisions. It indicates how far they have helped in improving the performance.
2. *Simplify complex figures and establish relationships:* Ratios help in simplifying the complex accounting figures and bring out their relationships. They help summarise the financial information effectively and assess the managerial efficiency, firm's credit worthiness, earning capacity, etc.
3. *Helpful in comparative analysis:* The ratios are not be calculated for one year only. When many year figures are kept side by side, they help a great deal in exploring the trends visible in the business. The knowledge of trend helps in making projections about the business which is a very useful feature.
4. *Identification of problem areas:* Ratios help business in identifying the problem areas as well as the bright areas of the business. Problem areas would need more attention and bright areas will need polishing to have still better results.
5. *Enables SWOT analysis:* Ratios help a great deal in explaining the changes occurring in the business. The information of change helps the management a great deal in understanding the current threats and opportunities and allows business to do its own SWOT (Strength-Weakness-Opportunity-Threat) analysis.
6. *Various comparisons:* Ratios help comparisons with certain bench marks to assess as to whether firm, performance is better or otherwise. For this purpose, the profitability, liquidity, solvency, etc. of a business may be compared: (i) over a number of accounting periods with itself (Intra-firm Comparison/Time Series Analysis), (ii) with other business enterprises (Inter-firm Comparison/Cross-sectional Analysis), and (iii) with standards set for that firm/industry (comparison with standard (or industry) expectations).

5.4 Limitations of Ratio Analysis

Since the ratios are derived from the financial statements, any weakness in the original financial statements will also creep in the derived analysis in the form of ratio analysis. Thus, the limitations of financial statements also form the limitations of the ratio analysis. Hence, to interpret the ratios, the user should be aware of the rules followed in the preparation of financial statements and also their nature and limitations. The limitations of ratio analysis which arise primarily from the nature of financial statements are as under:

1. *Limitations of Accounting Data:* Accounting data give an unwarranted impression of precision and finality. In fact, accounting data "reflect a combination of recorded facts, accounting conventions and personal judgements and the judgements and conventions applied affect them materially. For example, profit of the business is not a precise and final figure. It is merely an opinion of the accountant based on application of accounting policies. The soundness of the judgement necessarily depends on the competence and integrity of those who make them and on their adherence to Generally Accepted Accounting Principles and Conventions". Thus, the financial statements may not reveal the true state of affairs of the enterprises and so the ratios will also not give the true picture.
2. *Ignores Price-level Changes:* The financial accounting is based on stable money measurement principle. It implicitly assumes that price level changes are either non-existent or minimal. But the truth is otherwise. We are normally living in inflationary economies where the power of money declines constantly. A change in the price level makes analysis of financial statement of different accounting years meaningless because accounting records ignore changes in value of money.
3. *Ignore Qualitative or Non-monetary Aspects:* Accounting provides information about quantitative (or monetary) aspects of business. Hence, the ratios also reflect only the monetary aspects, ignoring completely the non-monetary (qualitative) factors.
4. *Variations in Accounting Practices:* There are differing accounting policies for valuation of inventory, calculation of depreciation, treatment of intangibles, definition of certain financial variables etc. available for various aspects of business transactions. These variations leave a big question mark on the cross sectional analysis. As there are variations in accounting practices followed by different business enterprises, a valid comparison of their financial statements is not possible.
5. *Forecasting:* Forecasting of future trends based only on historical analysis is not feasible. Proper forecasting requires consideration of non-financial factors as well.

Now let us talk about the limitations of the ratios. The various limitations are:

1. *Means and not the End:* Ratios are means to an end rather than the end by itself.

2. *Lack of ability to resolve problems:* Their role is essentially indicative and of whistle blowing and not providing a solution to the problem.
3. *Lack of standardised definitions:* There is a lack of standardised definitions of various concepts used in ratio analysis. For example, there is no standard definition of liquid liabilities. Normally, it includes all current liabilities, but sometimes it refers to current liabilities less bank overdraft.
4. *Lack of universally accepted standard levels:* There is no universal yardstick which specifies the level of ideal ratios. There is no standard list of the levels universally acceptable, and, in India, the industry averages are also not available.
5. *Ratios based on unrelated figures:* A ratio calculated for unrelated figures would essentially be a meaningless exercise. For example, creditors of Rs. 1,00,000 and furniture of Rs. 1,00,000 represent a ratio of 1:1. But it has no relevance to assess efficiency or solvency.

Hence, ratios should be used with due consciousness of their limitations while evaluatory the performance of an organisation and planning the future strategies for its improvement.

Test your Understanding – I

1. State which of the following statements are True or False.

(a) The only purpose of financial reporting is to keep the managers informed about the progress of operations.

(b) Analyses of data provided in the financial statements is termed as financial analysis.

(c) Long-term borrowing are concerned about the ability of a firm to discharge its obligations to pay interest and repay the principal amount.

(d) A ratio is always expressed as a quotient of one number divided by another.

(e) Ratios help in comparisons of a firm's results over a number of accounting periods as well as with other business enterprises.

(f) A ratio reflects quantitative and qualitative aspects of results.

5.5 Types of Ratios

There is a two way classification of ratios: (1) traditional classification, and (2) functional classification. The traditional classification has been on the basis of financial statements to which the determinants of ratios belong. On this basis the ratios are classified as follows:

1. *'Statement of Profit and Loss' Ratios:* A ratio of two variables from the statement of profit and loss is known as statement of profit and loss ratio. For example, ratio of gross profit to revenue from operations known as gross profit ratio is calculated using both figures from the statement of profit and loss.

2. *Balance Sheet Ratios:* In case both variables are from the balance sheet, it is classified as balance sheet ratios. For example, ratio of current assets to current liabilities known as current ratio is calculated using both figures from balance sheet.
3. *Composite Ratios:* If a ratio is computed with one variable from the statement of profit and loss and another variable from the balance sheet, it is called composite ratio. For example, ratio of credit revenue from operations to trade receivables, known as trade receivables turnover ratio, is calculated using one figure from the statement of profit and loss (credit revenue from operations) and another figure from the balance sheet.

Although accounting ratios are calculated by taking data from financial statements but classification of ratios on the basis of financial statements is rarely used in practice. It must be recalled that basic purpose of accounting is to throw light on the financial performance (profitability) and financial position (its capacity to raise money and invest them wisely) as well as changes occurring in financial position (possible explanation of changes in the activity level). As such, the alternative classification (functional classification) based on the purpose for which a ratio is computed, is the most commonly used classification which is as follows:

1. *Liquidity Ratios:* To meet its commitments, business needs liquid funds. The ability of the business to pay the amount due to stakeholders as and when it is due is known as liquidity, and the ratios calculated to measure it are known as 'Liquidity Ratios'. These are essentially short-term in nature.
2. *Solvency Ratios:* Solvency of business is determined by its ability to meet its contractual obligations towards stakeholders, particularly towards external stakeholders, and the ratios calculated to measure solvency position are known as 'Solvency Ratios'. These are essentially long-term in nature.
3. *Activity (or Turnover) Ratios:* This refers to the ratios that are calculated for measuring the efficiency of operations of business based on effective utilisation of resources. Hence, these are also known as 'Efficiency Ratios'.
4. *Profitability Ratios:* It refers to the analysis of profits in relation to revenue from operations or funds (or assets) employed in the business and the ratios calculated to meet this objective are known as 'Profitability Ratios'.

Exhibit - 1

ABC PHARMACEUTICALS LTD.

Profitability Ratios

	2010-11	2011-12	2012-13
PBDIT/total income	14.09	15.60	17.78
Net profit/total income	6.68	7.19	10.26
Cash flow/total income	7.97	8.64	12.13
Return on Net Worth (PAT/Net Worth)	16.61	10.39	14.68
Return on Capital Employed (PBDIT/Average capital employed)	15.40	15.33	16.17

Activity Ratios

	2010-11	2011-12	2012-13
Trade Receivables turnover (days)	104.00	87.00	80.00
Inventory turnover (days)	98.00	100.00	96.00
Working capital/total capital employed (%)	68.84	60.04	51.11
Interest/total income (%)	4.48	3.67	3.14

Leverage and Financial Ratios

	2010-11	2011-12	2012-13
Debt-equity ratio	1.45	0.66	0.77
Current ratio	3.50	3.72	3.58
Quick ratio	2.45	2.40	2.39
Cash and equivalents/total assets (%)	12.76	14.48	7.93
Interest cover	3.15	4.25	4.69

Valuation Ratios

	2010-11	2011-12	2012-13
Earnings per share	15.00	12.75	21.16
Cash earnings per share	18.78	15.58	24.85
Dividend per share	3.27	2.73	2.66
Book value per share	94.77	124.86	147.62
Price/Earning	8.64	15.03	13.40

5.6 Liquidity Ratios

Liquidity ratios are calculated to measure the short-term solvency of the business, i.e. the firm's ability to meet its current obligations. These are analysed by looking at the amounts of current assets and current liabilities in the balance sheet. The two ratios included in this category are Current Ratio and Liquidity Ratio.

5.6.1 Current Ratio

Current ratio is the proportion of current assets to current liabilities. It is expressed as follows:

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

Current assets include current investments, inventories, trade receivables (debtors and bills receivables), cash and cash equivalents, short-term loans and advances and other current assets such as prepaid expenses, advance tax and accrued income, etc.

Current liabilities include short-term borrowings, trade payables (creditors and bills payables), other current liabilities and short-term provisions.

Illustration 1

Particulars	Rs.
Inventories	50,000
Trade receivables	50,000
Advance tax	4,000
Cash and cash equivalents	30,000
Trade payables	1,00,000
Short-term borrowings (bank overdraft)	4,000

Solution:

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

Current Assets = Inventories + Trade receivables + Advance tax + Cash and cash equivalents

= Rs. 50,000 + Rs. 50,000 + Rs. 4,000 + Rs. 30,000

Rs. 1,34,000

Current Liabilities = Trade payables + Short-term borrowings

= Rs. 1,00,000 + Rs. 4,000

= Rs. 1,04,000

$$\text{Current Ratio} = \frac{\text{Rs.}1,34,000}{\text{Rs.}1,04,000} = 1.29:1$$

Significance: It provides a measure of degree to which current assets cover current liabilities. The excess of current assets over current liabilities provides a measure of safety margin available against uncertainty in realisation of current assets and flow of funds. The ratio should be reasonable. It should neither be very high or very low. Both the situations have their inherent disadvantages. A very high current ratio implies heavy investment in current assets which is not a good sign as it reflects under utilisation or improper utilisation of resources. A low ratio endangers the business and puts it at risk of facing a situation where it will not be able to pay its short-term debt on time. If this problem persists, it may affect firms credit worthiness adversely. Normally, it is safe to have this ratio within the range of 2:1.

5.6.2 *Quick Ratio*

It is the ratio of quick (or liquid) asset to current liabilities. It is expressed as

$$\text{Quick ratio} = \text{Quick Assets : Current Liabilities} \quad \text{or} \quad \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

The quick assets are defined as those assets which are quickly convertible into cash. While calculating quick assets we exclude the inventories at the end and other current assets such as prepaid expenses, advance tax, charges and expenses, etc. from the current assets. Because of exclusion of non-liquid current assets it is considered better than current ratio as a measure of liquidity position of the business. It is calculated to serve as a supplementary check on liquidity position of the business and is therefore, also known as 'Acid-Test Ratio'.

Illustration 2

Calculate quick ratio from the information given in illustration 1.

Solution:

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

Quick Assets	=	Current assets -(Inventories + Advance tax)
	=	Rs. 1,34,000 -(Rs. 50,000 + Rs. 4,000)
	=	Rs. 80,000
Current Liabilities	=	Rs. 1,04,000

$$\text{Quick Ratio} = \frac{\text{Rs. }80,000}{\text{Rs. }1,04,000} = 0.77 : 1$$

Significance: The ratio provides a measure of the capacity of the business to meet its short-term obligations without any flaw. Normally, it is advocated to be safe to have a ratio of 1:1 as unnecessarily low ratio will be very risky and a high ratio suggests unnecessarily deployment of resources in otherwise less profitable short-term investments.

Illustration 3

Calculate 'Liquidity Ratio' from the following information:

Current Liabilities	=	Rs. 50,000
Current Assets	=	Rs. 80,000
Inventories	=	Rs. 20,000
Advance Tax	=	Rs. 5,000
Prepaid Expenses	=	Rs. 5,000

Solution:

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

Liquidity Assets = Current assets –(Inventories + Prepaid expenses + Advance tax)
= Rs. 80,000 -(Rs. 20,000 + Rs. 5,000 + Rs. 5,000)
= Rs. 50,000

$$\text{Liquidity Ratio} = \frac{\text{Rs. } 50,000}{\text{Rs. } 50,000} = 1:1$$

Illustration 4

X Ltd. has a current ratio of 3.5:1 and quick ratio of 2:1. If excess of current assets over quick assets represented by inventories is Rs. 24,000, calculate current assets and current liabilities.

Solution:

Current Ratio	=	3.5:1
Quick Ratio	=	2:1
Let Current Liabilities	=	x
Current Assets	=	3.5x
And Quick Assets	=	2x
Inventories	=	Current Assets – Quick Assets
24,000	=	3.5x – 2x
24,000	=	1.5x
x	=	Rs.16,000
Current Assets	=	3.5x = 3.5 Rs. 16,000 = Rs. 56,000.
Verification :		
Current Ratio	=	Current Assets : Current Liabilities
	=	Rs. 56,000 : Rs. 16,000
	=	3.5 : 1
Quick Ratio	=	Quick Assets – Current Liabilities
	=	Rs. 32,000 : Rs. 16,000
	=	2:1

Illustration 5

Calculate the current ratio from the following information:

Total Assets	=	Rs. 3,00,000
Non-current Liabilities	=	Rs. 80,000
Shareholders' Funds	=	Rs. 2,00,000
Non-Current Assets:		
Fixed Assets	=	Rs. 1,60,000
Non-current Investments	=	Rs. 1,00,000

Solution:

Total Assets	=	Non-current Assets + Current Assets
Rs. 3,00,000	=	Rs. 2,60,000 + Current Assets
Current Assets	=	Rs. 3,00,000 – Rs. 2,60,000 = Rs. 40,000
Total Assets	=	Equity and Liabilities
	=	Shareholders' Funds + Non-Current Liabilities + Current Liabilities
Rs. 3,00,000	=	Rs. 2,00,000 + Rs. 80,000 + Current Liabilities
Current Liabilities	=	Rs. 3,00,000 – Rs. 2,80,000
	=	Rs. 20,000

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

$$= \frac{\text{Rs. } 40{,}000}{\text{Rs. } 20{,}000} = 2:1$$

Do it Yourself

1. Current liabilities of a company are Rs. 5,60,000, current ratio is 5:2 and quick ratio is 2:1. Find the value of the Inventories.
2. Current ratio = 4.5:1, quick ratio = 3:1.Inventory is Rs. 36,000. Calculate the current assets and current liabilities.
3. Current assets of a company are Rs. 5,00,000. Current ratio is 2.5:1 and quick ratio is 1:1. Calculate the value of current liabilities, liquid assets and inventories.

Illustration 6

The current ratio is 2:1. State giving reasons which of the following transactions would improve, reduce and not change the current ratio:

(a) Payment of current liability;
(b) Purchased goods on credit;
(c) Sale of desktop (Book value – Rs. 4,000) for Rs. 3,000 only;
(d) Sale of merchandise (goods) costing Rs. 10,000 for Rs. 11,000;
(e) Payment of dividend.

Solution:

The given current ratio is 2:1. Let us assume that current assets are Rs. 50,000 and current liabilities are Rs. 25,000; Thus, the current ratio is 2:1. Now we will analyse the effect of given transactions on current ratio.

(a) Assume that Rs. 10,000 of creditors is paid by cheque. This will reduce the current assets to Rs. 40,000 and current liabilities to Rs. 15,000. The new ratio will be 2.67(Rs. 40,000/Rs.15,000). Hence, it has *improved*.

(b) Assume that Rs. 10,000 goods are purchased on credit. This will increase the current assets to Rs. 60,000 and current liabilities to Rs. 35,000. The new ratio will be 1.7:1 (Rs. 60,000/Rs. 35,000). Hence, it has *reduced*.

(c) Due to sale of a Desktop (a fixed asset) the current assets will increase up to Rs. 53,000 without any change in the current liabilities. The new ratio will be 2.1:2 (Rs. 53,000/Rs. 25,000). Hence, it has *improved*.

(d) This transaction will decrease the inventories by Rs. 10,000 and increase the cash by Rs. 11,000 thereby increasing the current assets by Rs. 1,000 without any change in the current liabilities. The new ratio will be 2.04:1 (Rs. 51,000/Rs. 25,000). Hence, it has *improved*.

(e) Assume that Rs. 5,000 is given by way of dividend. It will reduce the current assets to Rs. 45,000 without any change in the current liabilities. The new ratio will be 1.8:1 (Rs. 45,000/Rs. 25,000). Hence, it has *reduced*.

5.7 Solvency Ratios

The persons who have advanced money to the business on long-term basis are interested in safety of their payment of interest periodically as well as the repayment of principal amount at the end of the loan period. Solvency ratios are calculated to determine the ability of the business to service its debt in the long run. The following ratios are normally computed for evaluating solvency of the business.

1. Debt-Equity Ratio;
2. Debt to Capital Employed Ratio;
3. Proprietary Ratio;
4. Total Assets to Debt Ratio;
5. Interest Coverage Ratio.

5.7.1 Debt-Equity Ratio

Debt-Equity Ratio measures the relationship between long-term debt and equity. If debt component of the total long-term funds employed is small, outsiders feel more secure. From security point of view, capital structure with less debt and more equity is considered favourable as it reduces the chances of bankruptcy. However, it may vary from industry to industry. Normally, it is considered to be safe if debt equity ratio is 2:1. However, it may vary from industry to industry. It is computed as follows:

Debt-Equity Ratio = Long-term Debts/Shareholders' Funds

or

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

Where:		
Shareholders' Funds/Equity	=	Share Capital + Reserves and Surplus + Money received against warrants
Share Capital	=	Equity Share Capital + Preference Share Capital
		or
Shareholders' Funds/Equity	=	Non-Current Assets + Working Capital– Non-Current Liabilities
Working Capital	=	Current Assets –Current Liabilities

Significance: This ratio measures the degree of indebtedness of an enterprise and gives an idea to the long-term lender regarding extent of security of the debt. As indicated earlier, a low debt equity ratio reflects more security. A high ratio, on the other hand, is considered risky as it may put the firm into difficulty in meeting its obligations to outsiders. However, from the perspective of the owners, greater use of debt (trading on equity) may help in ensuring higher returns for them if the rate of earnings on capital employed is higher than the rate of interest payable.

Illustration 7

From the following balance sheet of ABC Co. Ltd. as on March 31, 2013. Calculate debt equity ratio:

ABC Co. Ltd.

Balance Sheet as at 31 March, 2013

Particulars	Note No.	Amount (Rs.)
I. Equity and Liabilities		
1. Shareholders' funds		
a) Share capital		12,00,000
b) Reserves and surplus		2,00,000
c) Money received against share warrants		1,00,000
2. Non-current Liabilities		
a) Long-term borrowings		4,00,000
b) Other long-term liabilities		40,000
c) Long-term provisions		60,000
3. Current Liabilities		
a) Short-term borrowings		2,00,000
b) Trade payables		1,00,000
c) Other current liabilities		50,000
d) Short-term provisions		1,50,000
		25,00,000
II. Assets		
1. Non-Current Assets		
a) Fixed assets		15,00,000
b) Non-current investments		2,00,000
c) Long-term loans and advances		1,00,000

2. Current Assets		
a) Current investments		1,50,000
b) Inventories		1,50,000
c) Trade receivables		1,00,000
d) Cash and cash equivalents		2,50,000
e) Short-term loans and advances		50,000
		11,50,000

Solution:

Debt-Equity Ratio $= \dfrac{\text{Debts}}{\text{Equity}}$

Debt = Long-term borrowings + Other long-term liabilities + Long-term provisions
= Rs. 4,00,000 + Rs. 40,000 + Rs. 60,000
= Rs. 5,00,000

Eequity = Share capital + Reserves and surplus + Money received against share warrants
= Rs. 12,00,000 + Rs. 2,00,000 + Rs. 1,00,000
= Rs. 15,00,000

Alternatively,
Equity = Non-current assets + Working capital –Non-current liabilities
= Rs. 18,00,000 + Rs. 2,00,000 –Rs. 5,00,000
= Rs. 15,00,000

Working Capital = Current assets – Current liabilities
= Rs. 7,00,000 –Rs. 5,00,000
= Rs. 2,00,000

Debt Equity Ratio $= \dfrac{50,0000}{1,50,0000} = 0.33 : 1$

Illustration 8

From the following balance sheet of a company, calculate Debt-Equity Ratio:

Balance Sheet

Particulars	Note No.	Rs.
I. Equity and Liabilities		
1. Shareholders' funds		
a) Share capital		10,00,000
b) Reserves and surplus	1	1,00,000
2. Non-Current Liabilities		
a) Long-term borrowings		1,50,000
3. Current Liabilities		1,50,000
		14,00,000

II. Assets		
1. Non-Current Assets		
a) Fixed assets		
- Tangible assets	2	11,00,000
2. Current Assets		
a) Inventories		1,00,000
b) Trade receivables		90,000
c) Cash and cash equivalents		1,10,000
		14,00,000

Notes to Accounts

Note 1: Share Capital

	Rs.
Equity Share Capital	8,00,000
Preference Share Capital	2,00,000
	10,00,000

Notes to Accounts

	Rs.
2. Tangible Assets:	
Plant and Machinery	5,00,000
Land and Building	4,00,000
Motor Car	1,50,000
Furniture	50,000
	11,00,000

Solution:

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

Long-term Debts = Long-term Borrowings

= Rs. 1,50,000

Equity = Share capital + Reserves and surplus

= Rs. 10,00,000 + Rs. 1,00,000 = Rs. 11,00,000

$$\text{Debt Equity Ratio} = \frac{1,50,000}{11,00,000} = .136:1$$

5.7.2 Debt to Capital Employed Ratio

The Debt to capital employed ratio refers to the ratio of long-term debt to the total of external and internal funds (capital employed or net assets). It is computed as follows:

Long-term Debt/Capital Employed (or Net Assets)

Capital employed is equal to the long-term debt + shareholders' funds. Alternatively, it may be taken as net assets which are equal to the total assets – current liabilities taking the data of Illustration 7, (capital employed shall work out to Rs. 15,00,000 + Rs. 5,00,000 = Rs. 20,00,000. Similarly, Net Assets as Rs. 25,00,000 – Rs. 5,00,000 = Rs. 20,00,000 and the Debt to capital employed ratio as Rs. 5,00,000/Rs. 20,00,000 = 0.25:1).

Significance: Like debt-equity ratio, it shows proportion of long-term debts in capital employed. Low ratio provides security to creditors and high ratio helps management in trading on equity. In the above case, the debt ratio is less than half which indicates reasonable funding by debt and adequate security of debt.

It may be noted that Debt Ratio can also be computed in relation to total assets. In that case, it usually refers to the ratio of total debts (long-term debts + current liabilities) to total assets, i.e. total of non-current and current assets (or shareholders funds + long-term debts + current liabilities), and is expressed as

$$\text{Debt Ratio} = \frac{\text{Total Debts}}{\text{Total Assets}}$$

5.7.3 Proprietary Ratio

Proprietary ratio expresses relationship of proprietor's (shareholders) funds to net assets and is calculated as follows :

Proprietary Ratio = Shareholders Funds/Capital employed (or net assets)

Based on data of Illustration 7, it shall be worked out as follows:

Rs. 15,00,000/Rs. 20,00,000 = 0.75:1

Significance: Higher proportion of shareholders funds in financing the assets is a positive feature as it provides security to creditors. This ratio can also be computed in relation to total assets in lead of net assets (capital employed) It may be noted that the total of debt to capital employed ratio and proprietory ratio will be equal to 1. Take these ratios worked out on the basis of data of Illustration 7, the debt equity ratio is 0.25 and the Proprietory Ratio 0.75, the total is 0.25 + 0.75 = 1. In terms of percentage it can be stated that the 44% of the capital employed is funded by debts and 75% by owners' funds.

5.7.4 Total Assets to Debt Ratio

This ratio measures the extent of the coverage of long-term debts by assets. It is calculated as

Total assets to Debt Ratio = Total assets/Long-term debts

Taking the data of Illustration 8, this ratio will be worked out as follows:

Rs. 14,00,000/Rs. 1,50,000 = 9.33:1

The higher ratio indicates that assets have been mainly financed by owners funds and the long-term is adequately covered by assets.

It is better to take the net assets (capital employed) instead of total assets for computing this ratio also. It will be observed that in that case, the ratio will be the reciprocal of the debt to capital employed ratio.

Significance. This ratio primarily indicators the rate of external funds in financing the assets and the extent of coverage of their debts are covered by assets.

Illustration 9

From the following information, calculate DebtEquity Ratio, Total Assets to Debt Ratio, Proprietory Ratio, and Debt to Capital Employed Ratio:

Balance Sheet as at March 31, 2013

Particulars	Note No.	Rs.
I. Equity and Liabilities:		
1. Shareholders' funds		
a) Share capital		4,00,000
b) Reserves and surplus	1	1,00,000
2. Non-current Liabilities		
a) Long-term borrowings		1,50,000
3. Current Liabilities		50,000
		7,00,000
II. Assets		
1. Non-current Assets		
a) Fixed assets		4,00,000
b) Non-current investments		1,00,000
2. Current Assets		2,00,000
		7,00,000

Solution:

i) Debt-Equity Ratio $= \dfrac{\text{Debts}}{\text{Equity}}$

Debt = Long-term borrowings =Rs. 1,50,000

Equity = Share capital + Reserves and surplus

= Rs. 4,00,000 + Rs. 1,00,000 = Rs. 5,00,000

Debt-Equity Ratio $= \dfrac{\text{Rs. } 1,50,000}{\text{Rs. } 5,00,000} = 0.3:1$

ii) Total Assets to Debt Ratio $= \dfrac{\text{Total Assets}}{\text{Long - term Debts}}$

Total Assets = Fixed assets + Non-current investments + Current assets
= Rs. 4,00,000 + Rs. 1,00,000 + Rs. 2,00,000 = Rs. 7,00,000
Debt = Rs. 1,50,000

Total Asset to Debt Ratio $= \dfrac{\text{Rs. } 7,00,000}{\text{Rs. } 1,50,000} = 4.67:1$

iii) Proprietary Ratio = or $\dfrac{\text{Shareholders' Funds}}{\text{Total Assets}}$

$= \dfrac{\text{Rs. } 5,00,000}{\text{Rs. } 7,00,000} = 0.71:1$

iv) Debt to Capital Employed Ratio $= \dfrac{\text{Long - term Debts}}{\text{Capital Employed}}$

Capital Employed = Shareholders' Funds + Long-term borrowings
= Rs. 5,00,000 + Rs. 1,50,000
= Rs. 6,50,000

Debt to Capital Employed Ratio $= \dfrac{\text{Long - term Debts}}{\text{Capital Employed}}$

$= \dfrac{\text{Rs. } 1,50,000}{\text{Rs. } 6,50,000} = 0.23:1$

Illustration 10

The debt equity ratio of X Ltd. is 0.5:1. Which of the following would increase/ decrease or not change the debt equity ratio?

(i) Further issue of equity shares
(ii) Cash received from debtors
(iii) Sale of goods on cash basis
(iv) Redemption of debentures
(v) Purchase of goods on credit.

Solution:

The change in the ratio depends upon the original ratio. Let us assume that external funds are Rs. 5,00,000 and internal funds are Rs. 10,00,000. It explains the debt equity ratio of 0:5:1 Now we will analyse the effect of given transactions on debt equity ratio.

(i) Assume that Rs. 1,00,000 worth of equity shares are issued. This will increase the internal funds to Rs. 11,00,000. The new ratio will be 0.45:1 (5,00,000/11,00,000). Thus, it is clear that further issue of equity shares decreases the debt-equity ratio.

(ii) Cash received from debtors will leave the internal and external funds unchanged as this will only affect the composition of current assets. Hence, the debt-equity ratio will remain unchanged.

(iii) This will also leave the ratio *unchanged*.

(iv) Assume that Rs. 1,00,000 debentures are redeemed. This will decrease the long-term debt to Rs. 4,00,000. The new ratio will be 0.4:1 (4,00,000/10,00,000). Redemption of debentures will decrease the debit equity ratio.

(v) This will also leave the ratio *unchanged*.

5.7.5 Interest Coverage Ratio

It is a ratio which deals with the servicing of interest on loan. It is a measure of security of interest payable on long-term debts. It expresses the relationship between profits available for payment of interest and the amount of interest payable. It is calculated as follows:

$$\text{Interest Coverage Ratio} = \frac{\text{Net Profit before Interest and Tax}}{\text{Interest on long-term debts}}$$

Significance: It reveals the number of times interest on long-term debts is covered by the profits available for interest. A higher ratio ensures safety of interest on debts.

Illustration 11

From the following details, calculate interest coverage ratio:

Net Profit after tax Rs. 60,000; 15% Long-term Debt 10,00,000; and Tax Rate 40%.

Solution:

Net Profit after Tax	= Rs. 60,000
Tax Rate	= 40%
Net Profit before tax	= Net profit after tax X 100/(100 – Tax rate)
	= Rs. 60,000 X 100/(100 – 40)
	= Rs. 1,00,000
Interest on Long term Debt	= 15% of Rs. 10,00,000 = Rs. 1,50,000

Net profit before interest and tax	=	Net profit before tax + Interest
	=	Rs. 1,00,000 + Rs. 1,50,000 = Rs. 2,50,000
Interest Coverage Ratio	=	Net Profit before Interest and Tax/Interest on long-term debt
	=	Rs. 2,50,000/Rs. 1,50,000
	=	1.67 times.

5.8 Activity (or Turnover) Ratio

These ratios indicate the speed at which, activities of the business are being performed. The activity ratios express the number of times assets employed, or, for that matter, any constituent of assets, is turned into sales during an accounting period. Higher turnover ratio means better utilisation of assets and signifies improved efficiency and profitability, and as such are known as efficiency ratios. The important activity ratios calculated under this category are :

1. Inventory Turnover;
2. Trade Receivable Turnover;
3. Trade Payable Turnover;
4. Investment (Net Assets) Turnover
5. Fixed Assets Turnover; and
6. Working Capital Turnover.

5.8.1 Inventory Turn-over Ratio

It determines the number of times inventory is converted in to revenue from operations during the accounting period under consideration. It expresses the relationship between the cost of revenue from operations and average inventory. The formula for its calculation is as follows:

Inventory Turnover Ratio = Cost of Revenue from Operations / Average Inventory

Where average inventory refers to arithmetic average of opening and closing inventory, and the cost of revenue from operations means revenue from operations less gross profit.

Significance : It studies the frequency of conversion of inventory of finished goods into revenue from operations. It is also a measure of liquidity. It determines how many times inventory is purchased or replaced during a year. Low turnover of inventory may be due to bad buying, obsolete inventory , etc. and is a danger signal. High turnover is good but it must be carefully interpreted as it may be due to buying in small lots or selling quickly at low margin to realise cash. Thus, it throws light on utilisation of inventory of goods.

Test your Understanding – II

(i) The following groups of ratios are primarily measure risk:
- A. liquidity, activity, and profitability
- B. liquidity, activity, and inventory
- C. liquidity, activity, and debt
- D. activity, debt and profitability

(ii) The _________ ratios are primarily measures of return:
- A. liquidity
- B. activity
- C. debt
- D. profitability

(iii) The _________ of business firm is measured by its ability to satisfy its short-term obligations as they come due:
- A. activity
- B. liquidity
- C. debt
- D. profitability

(iv) _________ ratios are a measure of the speed with which various accounts are converted into revenue from operations or cash:
- A. Activity
- B. Liquidity
- C. Debt
- D. Profitability

(v) The two basic measures of liquidity are:
- A. inventory turnover and current ratio
- B. current ratio and liquid ratio
- C. gross profit margin and operating ratio
- D. current ratio and average collection period

(vi) The _________ is a measure of liquidity which excludes _______, generally the least liquid asset:
- A. current ratio, accounts debtors
- B. liquid ratio, accounts debtors
- C. current ratio, inventory
- D. liquid ratio, inventory

Illustration 12

From the following information, calculate inventory turnover ratio :

		Rs.
Turnover Ratio:		
Inventory in the beginning	=	18,000
Inventory at the end	=	22,000
Net purchases	=	46,000
Wages	=	14,000
Revenue from operations	=	80,000
Carriage inwards	=	4,000

Inventory Turnover Ratio $= \dfrac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$

Cost of Revenue from Operations = Inventory in the beginning + Net Purchases + Wages + Carriage inwards - Inventory at the end

= Rs. 18,000 + Rs. 46,000 + Rs. 14,000 + Rs. 4,000 – Rs. 22,000

= Rs. 60,000

Average Inventory $= \dfrac{\text{Inventory in the beginning + Inventory at the end}}{2}$

$= \dfrac{\text{Rs. } 18,000 + \text{Rs. } 22,000}{2}$ = Rs. 20,000

$\therefore$ Inventory Turnover Ratio $= \dfrac{\text{Rs. } 60,000}{\text{Rs. } 20,000}$ = 3 Times

Illustration 13

From the following information, calculate inventory turnover ratio:

		Rs.
Turnover Ratio:		
Revenue from operations	=	4,00,000
Average Inventory	=	55,000
Gross Loss Ratio	=	10%

Solution:

Revenue from operations = Rs. 4,00,000

Gross Loss = 10% of Rs. 4,00,000 = Rs. 40,000

Cost of goods Sold = Revenue from operations + Gross Loss

= Rs. 4,00,000 + Rs. 40,000 = Rs. 4,40,000

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$$

$$= \frac{\text{Rs. } 4,40,000}{\text{Rs. } 55,000} = 8 \text{ times}$$

Illustration 14

A trader carries an average inventory of Rs. 40,000. His inventory turnover ratio is 8 times. If he sells goods at a profit of 20% on Revenue from operations, find out the profit.

Solution:

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$$

$$8 = \frac{\text{Cost of Revenue from Operations}}{\text{Rs. } 40,000}$$

$\therefore$ Cost of Revenue from operations = 8 x Rs. 40,000

= Rs. 3,20,000

$$\text{Revenue from operations} = \text{Cost of Revenue from operations} \times \frac{100}{80}$$

$$= \text{Rs. } 3{,}20{,}000 \times \frac{100}{80} = \text{Rs. } 4{,}00{,}000$$

Profit = Revenue from operations - Cost of Revenue from operations

= Rs. 4,00,000 – Rs. 3,20,000 = Rs. 80,000

Do it Yourself

1. Calculate the amount of gross profit:

Average inventory	=	Rs. 80,000
Inventory turnover ratio	=	6 times
Selling price	=	25% above cost

2. Calculate Inventory Turnover Ratio:

Annual sales	=	Rs. 2,00,000
Gross Profit	=	20% on cost of Revenue from operations
Inventory in the beginning	=	Rs. 38,500

Inventory at the end	=	Rs. 41,500

5.8.2 Trade Receivables Turnover Ratio

It expresses the relationship between credit revenue from operations and trade receivable. It is calculated as follows :

Trade Receivable Turnover ratio	= Net Credit Revenue from Operations Average Trade Receivable
Where Average Trade Receivable	= (Opening Debtors and Bills Receivable + Closing Debtors and Bills Receivable)/2

It needs to be noted that debtors should be taken before making any provision for doubtful debts.

Significance: The liquidity position of the firm depends upon the speed with which trade receivables are realised. This ratio indicates the number of times the receivables are turned over and converted into cash in an accounting period. Higher turnover means speedy collection from trade receivable. This ratio also helps in working out the average collection period. The ratio is calculated by dividing the days/months in a year by trade receivables turnover ratio.

i.e., $\dfrac{\text{Number of days}}{\text{Trade receivables turn - over ratio}}$

Illustration 15

Calculate the Trade Receivables Turnover Ratio from the following information:

	Rs.
Total Revenue from Operations	4,00,000
Cash Revenue from Operations	20% of Total Revenue from operations
Trade Receivables as at 1.4.2013	40,000
Trade Receivables as at 31.3.2014	1,20,000

Solution:

Trade Receivables Turnover Ratio	=	$\dfrac{\text{Net Credit Revenue from Operations}}{\text{Average Trade Receivables}}$
Credit Revenue from operations	=	Total revenue from operations – Cash revenue from operations
Cash Revenue from operations	=	20% of Rs. 4,00,000
	=	Rs. 4,00,000 X $\dfrac{20}{100}$ = Rs. 80,000
Credit Revenue from operations	=	Rs. 4,00,000 –Rs, 80,000 = Rs. 3,20,000

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

$$= \frac{\text{Rs. } 40,000 + \text{Rs. } 1,20,000}{2} = \text{Rs. } 80,000$$

5.8.3 Trade Payable Turnover Ratio

Trade Payables turnover ratio indicates the pattern of payment of trade payable. As trade payable arise on account of credit purchases, it expresses relationship between credit purchases and trade payable. It is calculated as follows :

Trade Payables Turnover ratio = Net Credit purchases/ Average trade payable

Where Average Trade Payable = (Opening Creditors and Bills Payable + Closing Creditors and Bills Payable)/2

$$\text{Average Payment Period} = \frac{\text{No. of days in a year}}{\text{Trade Payables Turnover Ratio}}$$

Significance : It reveals average payment period. Lower ratio means credit allowed by the supplier is for a long period or it may reflect delayed payment to suppliers which is not a very good policy as it may affect the reputation of the business. The average period of payment can be worked out by days/months in a year by the turnover rate.

Illustration 16

Calculate the Trade Payables Turnover Ratio from the following figures:

		Rs.
Credit purchases during 2013-14	=	12,00,000
Creditors on 1.4.2013	=	3,00,000
Bills Payables on 1.4.2013	=	1,00,000
Creditors on 31.3.2014	=	1,30,000
Bills Payables on 31.3.2014	=	70,000

Solution:

$$\text{Trade Payables Turnover Ratio} = \frac{\text{Net Credit Purchases}}{\text{Average Trade Payables}}$$

$$\text{Average Trade Payables} = \frac{\text{Creditors in the beginning + Bills payables in the beginning + Creditors at the end + Bills payables at the end}}{2}$$

$$= \frac{\text{Rs. } 3,00,000 + \text{Rs. } 1,00,000 + \text{Rs. } 1,30,000 + \text{Rs. } 70,000}{2}$$

$= \text{Rs. } 3,00,000$

$$\therefore \text{ Trade Payables Turnover Ratio} = \frac{\text{Rs. } 12,00,000}{\text{Rs. } 3,00,000} = 4 \text{ times}$$

Illustration 17

From the following information, calculate –

(i) Trade Receivables Turnover Ratio
(ii) Average Collection Period
(iii) Trade Payable Turnover Ratio
(iv) Average Payment Period

Given :

	(Rs.)
Revenue from Operations	8,75,000
Creditors	90,000
Bills Receivable	48,000
Bills Payable	52,000
Purchases	4,20,000
Trade Receivables	59,000

Solution:

$$\text{(i) Trade Receivables Turnover Ratio} = \frac{\text{Rs. } 8,75,000}{(\text{Rs. } 59,000 + \text{Rs. } 48,000)}$$

$= 8.18 \text{ times}$

* This figure has not been divided by 2, in order to calculate an average, as the figures of debtors and bills receivables in the beginning of the year are not available. So when only year-end figures are available use the same as it is.

(ii) Average Collection Period $= \dfrac{365}{\text{Trade Receivables}}$

$= \dfrac{365}{8.18}$

$=$ 45 days

(iii) Trade Payable Turnover Ratio $= \dfrac{\text{Purchases}}{\text{Average Trade Payables}}$

$= \dfrac{\text{Purchases}}{\text{Creditors + Bills payable}}$

$= \dfrac{4,20,000}{90,000 + 52,000}$

$= \dfrac{4,20,000}{1,42,000}$

$=$ 3 times

(iv) Average Payment Period $= \dfrac{365}{\text{Trade Payables Turnover Ratio}}$

$= \dfrac{365}{3}$

$=$ 122 days

5.8.4 Net Assets/Capital Employed Turnover Ratio

It reflects relationship between net assets/capital employed and revenue from operations in the business. Higher turnover means better activity and profitability. It is calculated as follows :

Net Assets/Capital Employed Turnover ratio = Revenue from Operations/ Capital Employed

Capital employed turnover ratio which studies turnover of capital employed (Net Assets) is analysed further by following two turnover ratios :

(a) *Fixed Assets Turnover Ratio :* It is computed as follows:

Fixed asset turnover Ratio = Net Revenue from Operations/ Net Fixed Assets *(b)* *Working Capital Turnover* Ratio : It is calculated as follows :

$$\text{Working Capital Turnover Ratio} = \frac{\text{Net Revenue from Operations}}{\text{Working Capital}}$$

Significance : High turnover, capital employed, working capital and fixed assets is a good sign and implies efficient utilisation of resources. Utilisation of capital employed or, for that matter, any of its components is revealed by the turnover ratios. Higher turnover reflects efficient utilisation resulting in higher liquidity and profitability in the business.

Illustration 18

From the following information, calculate (*i*) Net Assets Turnover, (*ii*) Fixed Assets Turnover, and (*iii*) Working Capital Turnover Ratios :

	(Rs.)		*(Rs.)*
Preference Shares Capital	4,00,000	Plant and Machinery	8,00,000
Equity Share Capital	6,00,000	Land and Building	5,00,000
General Reserve	1,00,000	Motor Car	2,00,000
Balance in Statement of Profit and Loss	3,00,000	Furniture	1,00,000
15% Debentures	2,00,000	Inventory	1,80,000
14% Loan	2,00,000	Debtors	1,10,000
Creditors	1,40,000	Bank	80,000
Bills Payable	50,000	Cash	30,000
Outstanding Expenses	10,000		

Revenue from operations for the year 2013-14 were Rs. 30,00,000

Solution:

Revenue from Operations = Rs. 30,00,000

Capital Employed = Share Capital + Reserves and Surplus + Long-term Debts (or Net Assets)

= (Rs.4,00,000 + Rs.6,00,000) + (Rs.1,00,000 + Rs.3,00,000) + (Rs.2,00,000 + Rs.2,00,000)

= Rs. 18,00,000

Fixed Assets = Rs.8,00,000 + Rs.5,00,000 + Rs.2,00,000 + Rs.1,00,000 = Rs. 16,00,000

Working Capital = Current Assets – Current Liabilities

= Rs.4,00,000 – Rs.2,00,000 = Rs. 2,00,000

Net Assets Turnover Ratio	=	Rs.30,00,000/Rs.18,00,000	=	1.67 times
Fixed Assets Turnover Ratio	=	Rs.30,00,000/Rs.16,00,000	=	1.88 times
Working Capital Turnover Ratio	=	Rs.30,00,000/Rs.2,00,000	=	15 times.

Test your Understanding – III

(i) The _________ is useful in evaluating credit and collection policies.
A. average payment period
B. current ratio
C. average collection period
D. current asset turnover

(ii) The ___________ measures the activity of a firm's inventory.
A. average collection period
B. inventory turnover
C. liquid ratio
D. current ratio

(iii) The ___________ ratio may indicate the firm is experiencing stock outs and lost sales.
A. average payment period
B. inventory turnover
C. average collection period
D. quick

(vi) ABC Co. extends credit terms of 45 days to its customers. Its credit collection would be considered poor if its average collection period was.
A. 30 days
B. 36 days
C. 47 days
D. 57 days

(v) ___________ are especially interested in the average payment period, since it provides them with a sense of the bill-paying patterns of the firm.
A. Customers
B. Stockholders
C. Lenders and suppliers
D. Borrowers and buyers

(vi) The __________ ratios provide the information critical to the long run operation of the firm
A. liquidity
B. activity
C. solvency
D. profitability

5.9 Profitability Ratios

The profitability or financial performance is mainly summarised in the statement of profit and loss. Profitability ratios are calculated to analyse the earning capacity of the business which is the outcome of utilisation of resources employed in the business. There is a close relationship between the profit and the efficiency with which the resources employed in the business are utilised. The various ratios which are commonly used to analyse the profitability of the business are:

1. Gross Profit Ratio
2. Operating Ratio
3. Operating Profit Ratio
4. Net profit Ratio
5. Return on Investment (ROI) or Return on Capital Employed (ROCE)
6. Return on Net Worth (RONW)
7. Earnings per Share
8. Book Value per Share
9. Dividend Payout Ratio
10. Price Earning Ratio.

5.9.1 Gross Profit Ratio

Gross profit ratio as a percentage of revenue from operations is computed to have an idea about gross margin. It is computed as follows:

Gross Profit Ratio = Gross Profit/Net Revenue of Operations 100

Significance: It indicates gross margin or mark-up on products sold. There is no standard norm for its comparison. It also indicates the margin available to cover operating expenses, non-operating expenses, etc. Change in gross profit ratio may result from change in selling price or cost of revenue from operations or a combination of both. A low ratio may indicate unfavourable purchase and sales policy. Higher gross profit ratio is always a good sign.

Illustration 19

Following information is available for the year 2013-14, calculate gross profit ratio:

	Rs.
Cash Revenue from Operations	25,000
Credit	75,000
Purchases : Cash	15,000
Credit	60,000
Carriage Inwards	2,000

Salaries	25,000
Decrease in Inventory	10,000
Return Outwards	2,000
Wages	5,000

Solution:

Revenue from Operations	= Cash Revenue from Operations + Credit Inventory
	= Rs.25,000 + Rs.75,000 = Rs. 1,00,000
Net Purchases	= Cash Purchases + Credit Purchases – Return Outwards
	= Rs.15,000 + Rs.60,000 – Rs.2,000 = Rs. 73,000
Cost of Inventory	= Purchases + (Opening Inventory – Closing Inventory) + Direct Expenses
	= Purchases + Decrease in inventory + Direct Expenses
	= Rs.73,000 + Rs.10,000 + (Rs.2,000 + Rs.5,000)
	= Rs.90,000
Gross Profit	= Revenue from Operations – Cost of Inventory
	= Rs.1,00,000 –Rs.90,000
	= Rs. 10,000
Gross Profit Ratio	= Gross Profit/Net Revenue from Operations 100
	= Rs.10,000/Rs.1,00,000 100
	= 10%.

5.9.2 Operating Ratio

It is computed to analyse cost of operation in relation to revenue from operations. It is calculated as follows:

Operating Ratio = (Cost of Revenue from Operations + Operating Expenses)/ Net Sales 100

Operating expenses include office expenses, administrative expenses, selling expenses, distribution expenses, depreciation and employee benefit expenses etc.

Cost of operation is determined by excluding non-operating incomes and expenses such as loss on sale of assets, interest paid, dividend received, loss by fire, speculation gain and so on.

5.9.3 Operating Profit Ratio

It is calculated to reveal operating margin. It may be computed directly or as a residual of operating ratio.

Operating Profit Ratio = 100 – Operating Ratio

Alternatively, it is calculated as under:

Operating Profit Ratio = Operating Profit/ Revenue from Operations 100

Where Operating Profit = Revenue from Operations – Cost of Operation

Significance: Operating Ratio is computed to express cost of operations excluding financial charges in relation to revenue from operations. A corollary of it is 'Operating Profit Ratio'. It helps to analyse the performance of business and throws light on the operational efficiency of the business. It is very useful for inter-firm as well as intra-firm comparisons. Lower operating ratio is a very healthy sign.

Illustration 20

Given the following information:

	Rs.
Revenue from Operations	3,40,000
Cost of Revenue from Operations	1,20,000
Selling expenses	80,000
Administrative Expenses	40,000

Calculate Gross Profit Ratio and Operating Ratio.

Solution:

Gross Profit = Revenue from Operations – Cost of Revenue from Operations

= Rs. 3,40,000 – Rs. 1,20,000

= Rs. 2,20,000

Gross Profit Ratio $= \frac{\text{Gross Profit}}{\text{Sales}} \times 100$

$= \frac{\text{Rs. } 2,20,000}{\text{Rs. } 3,40,000} \times 100$

= 64.71%

Operating Expenses = Cost of Revenue from Operations + Selling Expenses + Administrative Expenses

= Rs. 1,20,000 + 80,000 + 40,000

= Rs. 2,40,000

Operating Ratio $= \frac{\text{Operating Expenses}}{\text{Net Revenue from Operations}} \times 100$

$= \frac{\text{Rs. } 2,40,000}{\text{Rs. } 3,40,000} \times 100$

= 70.58%

5.9.4 Net Profit Ratio

Net Profit Ratio is based on all inclusive concept of profit. It relates revenue from operations to net profit after operational as well as non-operational expenses and incomes. It is calculated as under:

Net Profit Ratio = Net profit/Revenue from Operations 100

Generally, net profit refers to Profit after Tax (PAT).

Significance: It is a measure of net profit margin in relation to revenue from operations. Besides revealing profitability, it is the main variable in computation of Return on Investment. It reflects the overall efficiency of the business, assumes great significance from the point of view of investors.

Illustration 21

Gross profit ratio of a company was 25%. Its credit revenue from operations was Rs. 20,00,000 and its cash revenue from operations was 10% of the total revenue from operations. If the indirect expenses of the company were Rs. 50,000, calculate its net profit ratio.

Solution:

Cash Revenue from Operations	=	Rs.20,00,000 10/90
	=	Rs.2,22,222
Hence, total Revenue from Operations are	=	Rs.22,22,222
Gross profit = .25 22,22,222	=	Rs. 5,55,555
Net profit	=	Rs.5,55,555 – 50,000
	=	Rs.5,05,555
Net profit ratio	=	Net profit/Revenue from Operations 100
	=	Rs.5,05,555/Rs.22,22,222 100
	=	22.75%.

5.9.5 Return on Capital Employed or Investment (ROCE or ROI)

It explains the overall utilisation of funds by a business enterprise. Capital employed means the long-term funds employed in the business and includes shareholders' funds, debentures and long-term loans. Alternatively, capital employed may be taken as the total of non-current assets and working capital. Profit refers to the Profit before Interest and Tax (PBIT) for computation of this ratio. Thus, it is computed as follows:

Return on Investment (or Capital Employed) = Profit before Interest and Tax/Capital Employed 100

Significance: It measures return on capital employed in the business. It reveals the efficiency of the business in utilisation of funds entrusted to it by shareholders, debenture-holders and long-term loans. For inter-firm comparison, return on capital employed funds is considered good measure of profitability. It also helps in assessing whether the firm is earning a higher return on capital employed as compared to the interest rate paid.

5.9.6 Return on Shareholders' Funds

This ratio is very important from shareholders' point of view in assessing whether their investment in the firm generates a reasonable return or not. It should be higher than the return on investment otherwise it would imply that company's funds have not been employed profitably.

A better measure of profitability from shareholders point of view is obtained by determining return on total shareholders' funds, it is also termed as Return on Net Worth (RONW) and is calculated as under :

$$\text{Return on Shareholders' Fund} = \frac{\text{Profit after Tax}}{\text{Shareholders' Funds}}$$

5.9.7 Earnings Per Share

The ratio is defined as –

EPS = Profit available for equity shareholders/No. of Equity Shares

In this context, earnings refer to profit available for equity shareholders which is worked out as Profit after Tax – Dividend on Preference Shares.

This ratio is very important from equity shareholders point of view and also for the share price in the stock market. This also helps comparison with other to ascertain its reasonableness and capacity to pay dividend.

5.9.8 Book Value per Share

This ratio is calculated as –

Book Value per share = Equity shareholders' funds/No. of Equity Shares

Equity shareholder fund refers to Shareholders' Funds – Preference Share Capital. This ratio is again very important from equity shareholders point of view as it gives an idea about the value of their holding and affects market price of the shares.

5.9.9 Dividend Payout Ratio

This refers to the proportion of earning that are distributed to the shareholders. It is calculated as –

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

This reflects company's dividend policy and growth in owner's equity.

5.9.10 Price/Earning Ratio

The ratio is defined as –

P/E Ratio = Market Price of a Share/Earnings per Share

For example, if the EPS of company X is Rs. 10 and market price is Rs. 100, the price earning ratio will be 10 (100/10). It reflects investors expectation about the growth in the firm's earnings and reasonableness of the market price of its shares. P/E Ratio vary from industy to industry and company to company in the same industry depending upon investors perception of their future.

Illustration 22

From the following details, calculate Return on Investment:

Share Capital : Equity(Rs.10)	Rs. 4,00,000	Current Liabilities	Rs. 1,00,000
12% Preference	Rs. 1,00,000	Fixed Assets	Rs. 9,50,000
General Reserve	Rs. 1,84,000	Current Assets	Rs. 2,34,000
10% Debentures	Rs. 4,00,000		

Also calculate Return on Shareholders' Funds, EPS, Book value per share and P/E ratio if the market price of the share is Rs. 34 and the net profit after tax was Rs. 1,50,000, and the tax had amounted to Rs. 50,000.

Solution:

Profit before interest and tax	=	Rs. 1,50,000 + Debenture interest + Tax
	=	Rs. 1,50,000 + Rs. 40,000 + Rs. 50,000
	=	Rs.2,40,000
Capital Employed	=	Equity Share Capital + Preference Share Capital + Reserves + Debentures
	=	Rs. 4,00,000 + Rs. 1,00,000 + Rs. 1,84,000 + Rs. 4,00,000 = Rs. 10,84,000
Return on Investment	=	Profit before Interest and Tax/ Capital Employed 100
	=	Rs. 2,40,000/Rs. 10,84,000 100
	=	22.14%
Return on Shareholders' Funds	=	Profit after Tax/Shareholder Funds 100
	=	Rs. 1,50,000/Rs. 6,84,000 100
	=	13.84%
EPS	=	Profit available for equity shareholders/ No. of Equity Shares
	=	Rs. 1,38,000/ 40,000 = Rs. 3.45
Profit available to equity shareholders	=	Profit after Tax – Preference Dividend
	=	Rs. 1,50,000 – Rs. 12,000 = Rs. 1,38,000

P/E Ratio = Market price of a share/ Earnings per share		
	=	34/3.45
	=	9.86 Times
Book Value per share	=	Equity Shareholders' funds/No. of Equity Shares
Hence, Book value per share	=	Rs. 5,84,000/40,000 shares = Rs. 14.6

It may be noted that various ratios are related with each other. Sometimes, the combined information regarding two or more ratios is given and missing figures may need to be calculated. In such a situation, the formula of the ratio will help in working out the missing figures (See Illsuatration 23 and 24).

Illustration 23

Calculate current assets of a company from the following information:

Inventory turnover ratio = 4 times
Inventory at the end is Rs. 20,000 more than the inventory in the beginning.
Revenue from Operations Rs. 3,00,000 and gross profit ratio is 20% of revenue from operations.
Current liabilities = Rs. 40,000
Quick ratio = .75

Solution:

Cost of Revenue from Operations	=	Sales – gross profit
	=	Rs. 3,00,000 – (Rs. 3,00,000 20%)
	=	Rs. 3,00,000 – Rs. 60,000
	=	Rs. 2,40,000
Inventory Turnover Ratio	=	Cost of Revenue from Operations/ Average Inventory
	=	Cost of Revenue from Operations/ Average Inventory
Average Inventory	=	Cost of Revenue from Operations/4
	=	Rs. 2,40,000/4 = Rs. 60,000
Average Inventory	=	(Opening inventory + Closing inventory)/2
Rs. 60,000	=	(Opening inventory + Opening inventory +Rs.20,000)/2
Rs. 60,000	=	Opening inventory + Rs. 10,000
Opening Inventory	=	Rs. 50,000
Closing Inventory	=	Rs. 70,000
Liquid Ratio	=	Liquid assets/current liabilities
.75	=	Liquid assets/Rs. 40,000
Liquid Assets	=	Rs. 40,000 .75 = Rs. 30,000
Current Assets	=	Liquid assets + Closing inventory
	=	Rs. 30,000 + Rs. 70,000 = Rs. 1,00,000

Illustration 24

The current ratio is 2.5:1. Current assets are Rs. 50,000 and current liabilities are Rs. 20,000. How much must be the decline in the current assets to bring the ratio to 2:1.

Solution:

Current liabilities	= Rs. 20,000
For a ratio of 2:1, the current assets must be 2 20,000	= Rs. 40,000
Present level of current assets	= Rs. 50,000
Necessary decline	= Rs. 50,000 – Rs. 40,000
	= Rs. 10,000

Illustration 25

Following information is given by a company from its books of accounts as on March 31, 2014:

	Rs.
Inventory	1,00,000
Total Current Assets	1,60,000
Shareholders' funds	4,00,000
13% Debentures	3,00,000
Current liabilities	1,00,000
Net Profit Before Tax	3,51,000
Cost of revenue from operations	5,00,000

Calculate:

i) Current Ratio
ii) Liquid Ratio
iii) Debt Equity Ratio
iv) Interest Coverage Ratio
v) Inventory Turnover Ratio

Solution:

i) Current Ratio $= \dfrac{\text{Current Assets}}{\text{Current Liabilities}}$

$= \dfrac{\text{Rs. } 1,60,000}{\text{Rs. } 1,00,000} = 1.6:1$

ii) Liquid Assets = Current assets–Inventory

= Rs. 1,60,000–Rs. 1,00,000

= Rs. 60,000

Liquid Ratio $= \dfrac{\text{Liquid Assets}}{\text{Current Liabilities}}$

$= \dfrac{\text{Rs. } 60,000}{\text{Rs. } 1,00,000} = 0.6:1$

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

$= \dfrac{\text{Rs. } 3,00,000}{\text{Rs. } 4,00,000} = 0.75:1$

iv) Net Profit before Interest & Tax = Net Profit before Tax + Interest on Long term Debts
= Rs. 3,51,000 + (13% of Rs. 3,00,000)
= Rs. 3,51,000 + Rs. 39,000 = Rs. 3,90,000

Interest Coverage Ratio $= \dfrac{\text{Net Profit before Interest \& Tax}}{\text{Interest on Long Term Debts}}$

$= \dfrac{\text{Rs. } 3,90,000}{\text{Rs. } 39,000} = 10 \text{ times}$

v) Inventory Turnover Ratio $= \dfrac{\text{Cost of Revenue from Operations}}{\text{Average Inventory}}$

$= \dfrac{\text{Rs. } 5,00,000}{\text{Rs. } 1,00,000} = 5 \text{ times}$

Note: In absence of information regarding 'Inventory in the beginning' and 'Inventory at the end', the 'Inventory' is treated as Average Inventory.

Illustration 26

Calculate (i) Earning per share (ii) Book value per share (iii) Dividend payout ratio (iv) Price earning ratio from the following information:

	Rs.
70,000 Equity shares of Rs. 10 each	7,00,000
Net Profit after tax but before dividend	1,75,000
Market price of a share	13
Dividend declared @ 15%	

Solution:

i) Earning per share $= \dfrac{\text{Profit available for Equity Shareholders}}{\text{Number of Equity Shares}}$

$= \dfrac{\text{Rs. } 1,75,000}{\text{Rs. } 70,000} = \text{Rs. } 2.50$

ii) Book value per share $= \dfrac{\text{Equity Shareholders' Funds}}{\text{Number of Equity Shares}}$

$= \dfrac{\text{Rs. } 8,75,000}{\text{Rs. } 70,000} = \text{Rs. } 12.50$

iii) Dividend payout ratio $= \dfrac{\text{Dividend per share}}{\text{Earnings per share}}$

$= \dfrac{1.50}{2.50} = 0.6:1$

iv) Price earning ratio $= \dfrac{\text{Market price of a share}}{\text{Earnings per share}}$

$= \dfrac{13}{2.50} = 5.20$

Terms Introduced in the Chapter

1. Ratio Analysis
2. Liquidity Ratios
3. Solvency Ratios
4. Activity Ratios
5. Profitability Ratios
6. Return on Investment (ROI)
7. Quick Assets
8. Shareholders' Funds (Equity)
9. Return on Net Worth
10. Average Collection Period
11. Trade Receivables
12. Turnover Ratios
13. Efficiency Ratios
14. Dividend Payout

Summary

Ratio Analysis: An important tool of financial statement analysis is ratio analysis. Accounting ratios represent relationship between two accounting numbers.

*Objective of Ratio Analysis:*The objective of ratio analysis is to provide a deeper analysis of the profitability, liquidity, solvency and activity levels in the business. It is also to identify the problem areas as well as the strong areas of the business.

Advantages of Ratio Analysis: Ratio analysis offers many advantages including enabling financial statement analysis, helping understand efficacy of decisions, simplifying complex figures and establish relationships, being helpful in comparative analysis, identification of problem areas, enables SWOT analysis, and allows various comparisons.

Limitations of Ratio Analysis: There are many limitations of ratio analysis. Few are based because of the basic limitations of the accounting data on which it is based. The other set includes the limitation of the ratio analysis per set. In the first set are included factors like Historical Analysis, Ignores Price-level Changes, Ignore Qualitative or Non-monetary Aspects, Limitations of Accounting Data, Variations in Accounting Practices, and Forecasting. In the second set are included factor like means and not the end, lack of ability to resolve problems, lack of standardised definitions, lack of universally accepted standard levels, and ratios based on unrelated figures.

Types of Ratios: There are many types of ratios, viz. liquidity, solvency, activity and profitability ratios. The liquidity ratios include current ratio and acid test ratio. Solvency ratios are calculated to determine the ability of the business to service its debt in the long run instead of in the short run. They include debt equity ratio, total assets to debt ratio, proprietary ratio and interest coverage ratio. The turnover ratios basically exhibit the activity levels characterised by the capacity of the business to make more sales or turnover and include Inventory Turnover, Trade Receivables Turnover, Trade Payables Turnover, Working Capital Turnover, Fixed Assets Turnover and Current assets Turnover. Profitability ratios are calculated to analyse the earning capacity of the business which is the outcome of utilisation of resources employed in the business. The ratios include Gross Profit ratio, Operating ratio, Net Profit Ratio, Return on investment (Capital employed), Earnings per Share, Book Value per Share, Dividend per Share and Price/Earning ratio.

Questions for Practice

Short Answer Questions

1. What do you mean by Ratio Analysis?
2. What are various types of ratios?
3. What relationships will be established to study:
   a. Inventory Turnover
   b. Trade Receivables Turnover
   c. Trade Payables Turnover
   d. Working Capital Turnover
4. The liquidity of a business firm is measured by its ability to satisfy its long-term obligations as they become due. What are the ratios used for this purpose?
5. The average age of inventory is viewed as the average length of time inventory is held by the firm or as the average number of days' sales in inventory. Why?

Long Answer Questions

1. What are liquidity ratios? Discuss the importance of current and liquid ratio.
2. How would you study the Solvency position of the firm?
3. What are important profitability ratios? How are these worked out?
4. The current ratio provides a better measure of overall liquidity only when a firm's inventory cannot easily be converted into cash. If inventory is liquid, the quick ratio is a preferred measure of overall liquidity. Explain.

Numerical Questions

1. Following is the Balance Sheet of Raj Oil Mills Limited as at March 31, 2014

Particulars	Rs.
I. Equity and Liabilities:	
1. Shareholders' funds	
a) Share capital	7,90,000
b) Reserves and surplus	35,000
2. Current Liabilities	
a) Trade Payables	72,000
Total	**8,97,000**
II. Assets	
1. Non-current Assets	
a) Fixed assets	
Tangible assets	7,53,000

2. Current Assets	
a) Inventories	55,800
b) Trade Receivables	28,800
c) Cash and cash equivalents	59,400
Total	**8,97,000**

Calculate Current Ratio.
(**Ans**: Current Ratio 2:1)

2. Following is the Balance Sheet of Title Machine Ltd. as at March 31, 2006.

Particulars	Amount (Rs.)
I. Equity and Liabilities	
1. Shareholders' funds	
a) Share capital	24,00,000
b) Reserves and surplus	6,00,000
2. Non-current liabilities	
a) Long-term borrowings	9,00,000
3. Current liabilities	
a) Short-term borrowings	6,00,000
b) Trade payables	23,40,000
c) Short-term provisions	60,000
Total	**69,00,000**
II. Assets	
1. Non-current Assets	
a) Fixed assets	
- Tangible assets	45,00,000
2. Current Assets	
a) Inventories	12,00,000
b) Trade receivables	9,00,000
c) Cash and cash equivalents	2,28,000
d) Short-term loans and advances	72,000
Total	**69,00,000**

Calculate Current Ratio and Liquid Ratio.
(**Ans:** Current Ratio 0.8:1, Liquid Ratio 0.41:1)

3. Current Ratio is 3.5:1. Working Capital is Rs. 90,000. Calculate the amount of Current Assets and Current Liabilities.
(**Ans:** Current Assets Rs. 1,26,000 and Current Liabilities Rs. 36,000)

4. Shine Limited has a current ratio 4.5:1 and quick ratio 3:1; if the inventory is 36,000, calculate current liabilities and current assets.
(**Ans:** Current Liabilities Rs. 1,08,000, Current Assets Rs. 24,000)

5. Current liabilities of a company are Rs. 75,000. If current ratio is 4:1 and liquid ratio is 1:1, calculate value of current assets, liquid assets and inventory.
(**Ans:** Current Assts Rs. 3,00,000, Liquid Assets Rs. 75,000 and Inventory Rs. 2,25,000)

6. Handa Ltd. has inventory of Rs. 20,000. Total liquid assets are Rs. 1,00,000 and quick ratio is 2:1. Calculate current ratio.
   (**Ans:** Current Ratio 2.4:1)
7. Calculate debt-equity ratio from the following information:

Total Assets	Rs. 15,00,000
Current Liabilities	Rs. 6,00,000
Total Debts	Rs. 12,00,000

   (**Ans:** Debt-Equity Ratio 2:1.)
8. Calculate Current Ratio if:
   Inventory is Rs. 6,00,000; Liquid Assets Rs. 24,00,000; Quick Ratio 2:1.
   (**Ans:** Current Ratio 2.5:1)
9. Compute Inventory Turnover Ratio from the following information:

Net Revenue from Operations	Rs. 2,00,000
Gross Profit	Rs. 50,000
Inventory at the end	Rs. 60,000
Excess of inventory at the end over inventory in the beginning	Rs. 20,000

   (**Ans:** Inventory Turnover Ratio 3 times)
10. Calculate following ratios from the following information:
   (i) Current ratio (ii) Acid test ratio (iii) Operating Ratio (iv) Gross profit ratio

Current Assets	Rs. 35,000
Current Liabilities	Rs. 17,500
Inventory	Rs. 15,000
Operating Expenses	Rs. 20,000
Revenue from Operations	Rs. 60,000
Cost of Goods Sold	Rs. 30,000

   (**Ans:** Current Ratio 2:1; Liquid Ratio 1.14:1; Operating Ratio 83.3%; Gross Profit Ratio 50%)
11. From the following information calculate:
   (i) Gross Profit Ratio (ii) Inventory Turnover Ratio (iii) Current Ratio (iv) Liquid Ratio (v) Net Profit Ratio (vi) Working Capital Ratio:

Revenue from Operations	Rs. 25,20,000
Net Profit	Rs. 3,60,000
Cost of Revenue from Operations	Rs. 19,20,000
Long-term Debts	Rs. 9,00,000
Trade Payables	Rs. 2,00,000
Average Inventory	Rs. 8,00,000
Current Assets	Rs. 7,60,000

Fixed Assets	Rs. 14,40,000
Current Liabilities	Rs. 6,00,000
Net Profit before Interest and Tax	Rs. 8,00,000

(**Ans:** Gross Profit Ratio 23.81; Inventory Turnover Ratio 2.4 times; Current Ratio 2.6:1; Liquid Ratio 1.27:1; Net Profit Ratio 14.21%; Working Capital Ratio 2.625 times)

12. Compute Gross Profit Ratio, Working Capital Turnover Ratio, Debt Equity Ratio and Proprietary Ratio from the following information:

Paid-up Share Capital	Rs. 5,00,000
Current Assets	Rs. 4,00,000
Revenue from Operations	Rs. 10,00,000
13% Debentures	Rs. 2,00,000
Current Liabilities	Rs. 2,80,000
Cost of Revenue from Operations	Rs. 6,00,000

(**Ans:** Gross Profit Ratio 40%; Working Capital Ratio 8.33 times; Debt–Equity Ratio 0.4:1; Proprietary Ratio 0.51:1)

13. Calculate Inventory Turnover Ratio if:

Inventory in the beginning is Rs. 76,250, Inventory at the end is 98,500, Gross Revenue from Operations is Rs. 5,20,000, Return Inwards is Rs. 20,000, Purchases is Rs. 3,22,250.

(**Ans:** Inventory Turnover Ratio 3.43 times)

14. Calculate Inventory Turnover Ratio from the data given below:

Inventory in the beginning of the year	Rs. 10,000
Stock at the end of the year	Rs. 5,000
Carriage	Rs. 2,500
Revenue from Operations	Rs. 50,000
Purchases	Rs. 25,000

(**Ans:** Inventory Turnover Ratio 4.33 times)

15. A trading firm's average inventory is Rs. 20,000 (cost). If the inventory turnover ratio is 8 times and the firm sells goods at a profit of 20% on sales, ascertain the profit of the firm.

(**Ans:** Profit Rs. 40,000)

16. You are able to collect the following information about a company for two years:

	2012-13	*2013-14*
Book Debts on Apr. 01	Rs. 4,00,000	Rs. 5,00,000
Book Debts on Mar. 31		Rs. 5,60,000
Stock in trade on Mar. 31	Rs. 6,00,000	Rs. 9,00,000
Revenue from Operations (at gross profit of 25%)	Rs. 3,00,000	Rs. 24,00,000

Calculate Inventory Turnover Ratio and Trade Receivables Turnover Ratio if in the year 2012-13 stock in trade increased by Rs. 2,00,000.

(**Ans:** Inventory Turnover Ratio 2.4 times, Trade Receivables Turnover Ratio 4.53 times)

17. The following Balance Sheet and other information, calculate following ratios:

(i) Debt-Equity Ratio (ii) Working Capital Turnover Ratio (iii) Trade Receivables Turnover Ratio

Balance Sheet as at March 31, 2014

Particulars	Note No.	Rs.
I. Equity and Liabilities:		
1. Shareholders' funds		
a) Share capital		10,00,000
b) Reserves and surplus		9,00,000
2. Non-current Liabilities		
a) Long-term borrowings		12,00,000
3. Current Liabilities		
a) Trade payables		5,00,000
Total		**36,00,000**
II. Assets		
1. Non-current Assets		
a) Fixed assets		
Tangible assets		18,00,000
2. Current Assets		
a) Inventories		4,00,000
b) Trade Receivables		9,00,000
c) Cash and cash equivalents		5,00,000
Total		**36,00,000**

Additional Information: Revenue from Operations Rs. 18,00,000

Calculate:

i) Debt-Equity Ratio
ii) Working Capital Turnover Ratio
iii) Trade Receivables Turnover Ratio

(Debt-Equity Ratio 0.63:1; Working Capital Turnover Ratio 1.39 times; Trade Receivables Turnover Ratio 2 times)

(**Ans:** Debt Equity 12:19; Working Capital Turnover 1.4 times; Debtors Turnover 2 times)

18. From the following information, calculate the following ratios:

i) Quick Ratio

ii) Inventory Turnover Ratio

iii) Return on Investment

	Rs.
Inventory in the beginning	50,000
Inventory at the end	60,000
Revenue from operations	4,00,000
Gross Profit	1,94,000
Cash and Cash Equivalents	40,000
Trade Receivables	1,00,000
Trade Payables	1,90,000
Other Current Liabilities	70,000
Share Capital	2,00,000
Reserves and Surplus	1,40,000
(Balance in the Statement of Profit & Loss A/c)	

(**Ans:** Quick Ratio 0.54:1; Turnover Ratio Inventory 3.74 times; Return on Investment 41.17%)

19. From the following, calculate (a) Debt-Equity Ratio (b) Total Assets to Debt Ratio (c) Proprietary Ratio.

Equity Share Capital	Rs. 75,000
Preference Share Capital	Rs. 25,000
General Reserve	Rs. 45,000
Balance in the Statement of Profit & Loss	Rs. 30,000
Debentures	Rs. 75,000
Trade Payables	Rs. 40,000
Outstanding Expenses	Rs. 10,000

(**Ans:** Debt-Equity Ratio 0.43:1; Total Assets to Debt Ratio 4:1; Proprietary Ratio 0.58:1)

20. Cost of Revenue from Operations is Rs. 1,50,000. Operating expenses are Rs. 60,000. Revenue from Operations is Rs. 2,50,000. Calculate Operating Ratio.

(**Ans:** Operating Ratio 84%)

21. The following is the summerised transactions and Statement of Profit and Loss Account for the year ending March 31, 2007 and the Balance Sheet as on the basis of following information, calculate:

(i) Gross Profit Ratio (ii) Current Ratio (iii) Acid Test Ratio (iv) Inventory Turnover Ratio (v) Fixed Assets Turnover Ratio

	Rs.
Gross Profit	50,000
Revenue from Operations	1,00,000
Inventory	15,000
Trade Receivables	27,500
Cash and Cash Equivalents	17,500
Current Liablilites	40,000
Land & Building	50,000

Plant & Machinery	30,000
Furniture	20,000

(**Ans:** (i) Gross Profit Ratio 50%; (ii) Current Ratio 1.5:1; (iii) Acid Test Ratio 1.125:1, Inventory Turnover Ratio 3.33 times; (iv) Fixed Assets Turnover 1:1)

22. From the following information calculate Gross Profit Ratio, Inventory Turnover Ratio and Trade Receivable Turnover Ratio.

Revenue from Operations	Rs. 3,00,000
Cost of Revenue from Operations	Rs. 2,40,000
Inventory at the end	Rs. 62,000
Gross Profit	Rs. 60,000
Inventory in the beginning	Rs. 58,000
Trade Receivables	Rs. 32,000

(**Ans:** Gross Profit Ratio 20%; Inventory Turnover Ratio 4 times; Trade Receivables Turnover Ratio 9.4 times)

Answers to Test your Understanding

Test your Understanding – I

(a) F, (b) T, (c) T, (d) F, (e) T, (F) F

Test your Understanding – II

(i) D, (ii) B, (iii) B, (iv) A, (v) B, (vi) D

Test your Understanding – III

(i) C, (ii) B, (iii) A, (iv) C, (v) C, (vi) C

Cash Flow Statement

6

Learning Objectives

After studying this chapter, you will be able to :

- *State the purpose and preparation of statement of cash flow statement;*
- *Distinguish between operating activities, investing activities and financing activities;*
- *Prepare the statement of cash flows using direct method;*
- *Prepare the cash flow statement using indirect method.*

Till now you have learnt about the financial statements being primarily inclusive of Position Statement (showing the financial position of an enterprise as on a particular date) and Income Statement (showing the result of the operational activities of an enterprise over a particular period). There is also a third important financial statement known as *Cash flow statement,* which shows inflows and outflows of the cash and cash equivalents. This statement is usually prepared by companies which comes as a tool in the hands of users of financial information to know about the sources and uses of cash and cash equivalents of an enterprise over a period of time from various activities o*f an enterprise.* It has gained substantial importance in the last decade because of its practical utility to the users of financial information.

Accounting Standard-3 (AS-3), issued by The Institute of Chartered Accountants of India (ICAI) in june 1981, which dealt with a statement showing 'Changes in Financial Position', (Fund Flow Statement), has been revised and now deals with the preparation and presentation of Cash flow statement. The revised AS-3 has made it mandatory for all listed companies to prepare and present a cash flow statement along with other financial statements on annual basis. Hence, it may be noted, that Fund Flow statement is no more considered relevant in accounting and so not discussed here.

A cash flow statement provides information about the historical changes in cash and cash equivalents of an enterprise by classifying cash flows into operating, investing and financing activities. It requires that an enterprise should prepare a cash flow statement and should present it for each accounting period for which financial statements are presented. You will recall that cash flow analysis has also been mentioned in Chapter 4 as a technique of financial analysis. This chapter discusses this technique and explains the method of preparing a cash flow statement for an accounting period.

6.1 Nature of Cash Flow Statement

A Cash flow statement shows inflow and outflow of cash and cash equivalents from various activities of a company during a specific period. The primary objective of cash flow statement is to provide useful information about cash flows (inflows and outflows) of an enterprise during a particular period under various heads, i.e. operating activities, investing activities and financing activities.

This information 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.

6.2 Benefits of Cash Flow Statement

Cash flow statement provides the following benefits :

- A cash flow statement when used along with other financial statements provides information that enables users to evaluate changes in net assets of an enterprise, its financial structure (including its liquidity and solvency) and its ability to affect the amounts and timings 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 enterprises.
- 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.
- It also helps in fine tuning its cash inflow and cash outflow, keeping in response to changing condition. It is also helpful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and impact of changing prices.

6.3 Cash and Cash Equivalents

As stated earlier, cash flow statement shows inflows and outflows of cash and cash equivalents from various activities of an enterprise during a particular period. As per AS-3, 'Cash' comprises cash in hand and demand deposits with banks, and 'Cash equivalents' means short-term highly liquid investments that are readily convertible into known amounts *of cash and which are subj*ect to an insignificant risk of changes in value. An investment normally qualifies as cash equivalents 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 substantial cash equivalents. For example, preference shares of a company acquired shortly before their specific redemption date, provided there is only insignificant risk of failure of the company to repay the amount at maturity. Similarly, short-term marketable securities which can be readily converted into cash are treated as cash equivalents and is liquidable immediately without considerable change in value.

6.4 Cash Flows

'Cash Flows' implies movement of cash in and out of non-cash items. Receipt of cash from a non-cash item is termed as cash inflow while cash payment in respect of such items as cash outflow. For example, purchase of machinery by paying cash is cash outflow while sale proceeds received from sale of machinery is cash inflow. Other examples of cash flows include collection of cash from trade receivables, payment to trade payables, payment to employees, receipt of dividend, interest payments, etc.

Cash management includes the investment of excess cash in cash equivalents. Hence, purchase of marketable securities or short-term investment which constitutes cash equivalents is not considered while preparing cash flow statement.

6.5 Classification of Activities for the Preparation of Cash Flow Statement

You know that various activities of an enterprise result into cash flows (inflows or receipts and outflows or payments) which is the subject matter of a cash flow statement. As per AS-3, these activities are to be classified into three categories: (1) operating, (2) investing, and (3) financing activities so as to show separately the cash flows generated (or used) by (in) these activities. This helps the users of cash flow statement to assess the impact of these activities on the financial position of an enterprise and so also on its cash and cash equivalents.

6.5.1 Cash from Operating Activities

Operating activities are the activities that constitute the primary or main activities of an enterprise. For example, for a company manufacturing garments, procurement of raw material, incurrence of manufacturing expenses, sale of garments, etc. These are the principal revenue generating activities (or the main activities) of the enterprise and other activities that are not investing or financing activities. The amount of cash from operations' indicate the internal solvency level of the company, and is regarded as the 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, paying dividends, making of new investments and repaying of loans without recourse to external source of financing.

Cash flows from operating activities are primarily derived from the main activities of the enterprise. 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:

Cash Inflows from operating activities

- cash receipts from sale of goods and the rendering of services.
- cash receipts from royalties, fees, commissions and other revenues.

Cash Outflows from operating activities

- Cash payments to suppliers for goods and services.
- Cash payments to and on behalf of the employees.
- Cash payments to an insurance enterprise for premiums and claims, annuities, and other policy benefits.
- Cash payments or refunds of income taxes unless they can be specifically identified with financing and investing activities.

The net position is shown in case of operating cash flows.

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. Similarly, cash advances and loans made by financial enterprises are usually classified as operating activities since they relate to main activity of that enterprise.

6.5.2 Cash from Investing Activities

As per AS-3, investing activities are the acquisition and disposal of long-term assets and other investments not included in cash equivalents. Investing activities relate to purchase and sale of long-term assets or fixed assets such as machinery, furniture, land and building, etc. Transactions related to long-term investment are also investing activities.

Separate disclosure of cash flows from investing activities is important because they 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:

Cash Outflows from investing activities

- Cash payments to acquire fixed assets including intangibles and capitalised research and development.
- Cash payments to acquire shares, warrants or debt instruments of other enterprises other than the instruments other than those held for trading purposes.
- Cash advances and loans made to third party (other than advances and loans made by a financial enterprise wherein it is operating activities).

Cash Inflows from Investing Activities

- Cash receipt from disposal of fixed assets including intangibles.
- Cash receipt from the repayment of advances or loans made to third parties (except in case of financial enterprise).
- Cash receipt from disposal of shares, warrants or debt instruments of other enterprises except those held for trading purposes.
- Interest received in cash from loans and advances.
- Dividend received from investments in other enterprises.

6.5.3 Cash from Financing Activities

As the name suggests, financing activities relate to long-term funds or capital of an enterprise, e.g. cash proceeds from issue of equity shares, debentures, raising long-term bank loans, repayment of bank loan, etc. As per AS-3, financing activities are activities that result in changes in the size and composition of the owners' capital (including preference share capital in case of a company) and borrowings of the enterprise. Separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of funds (both capital and borrowings) to the enterprise. Examples of financing activities are:

Cash Inflows from financing activities

- Cash proceeds from issuing shares (equity or/and preference).
- Cash proceeds from issuing debentures, loans, bonds and other long-term borrowings.

Cash Outflows from financing activities

- Cash repayments of amounts borrowed.
- Interest paid on debentures and long-term loans and advances.
- Dividends paid on equity and preference capital.

It is important to mention here that a transaction may include cash flows that are classified differently. For example, when the instalment paid in respect of a fixed asset acquired on deferred payment basis includes both interest and loan, the interest element is classified under financing activities and the loan element is classified under investing activities. Moreover, same activity may be classified differently for different enterprises. For example, purchase of shares is an operating activity for a share brokerage firm while it is investing activity in case of other enterprises.

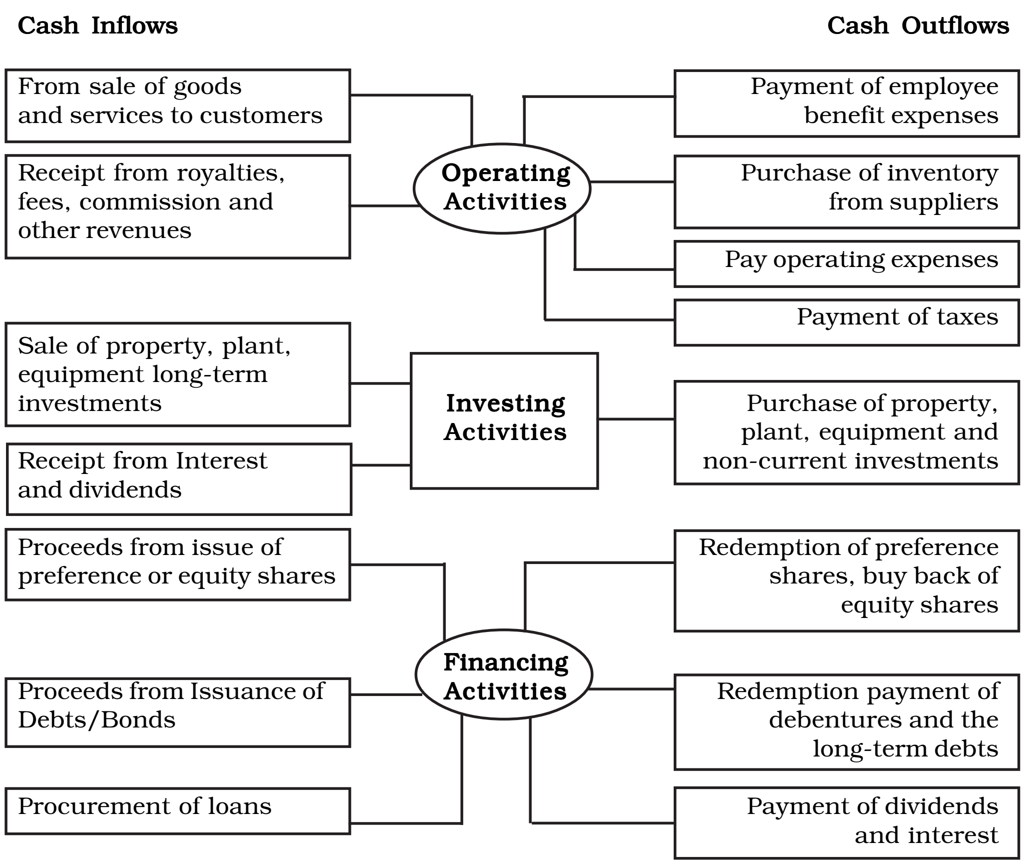


Fig. 6.1: *Classification of Cash inflows and Cash Outflows Activities*

6.5.4 Treatment of Some Peculiar Items

Extraordinary items

Extraordinary items are not the regular phenomenon, e.g. loss due to theft or earthquake or flood. Extraordinary items are non-recurring in nature and hence cash flows associated with extraordinary items should be classified and disclosed separately as arising from operating, investing or financing activities. This is done to enable users to understand their nature and effect on the present and future cash flows of an enterprise.

Interest and Dividend

In case of a financial enterprise (whose main business is lending and borrowing), interest paid, interest received and dividend received are classified as operating activities while dividend paid is the financing activity.

In case of a non-financial enterprise, as per AS-3, it is considered more appropriate that payment of interest and dividends are classified as financing activities whereas receipt of interest and dividends are classified as investing activities.

Taxes on Income and Gains

Taxes may be income tax (tax in normal profit), capital gains tax (tax on capital profits), dividend tax (tax on the amount distributed as dividend to shareholders). AS-3 requires that 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. This clearly implies that:

- tax on operating profit should be classified as operating cash flows.
- dividend tax, i.e. tax paid on dividend should be classified as financing activity along with dividend paid.
- Capital gains tax paid on sale of fixed assets should be classified under investing activities.

Non-cash Transactions

As per AS-3, investing and financing transactions that do not require the use of cash or cash equivalents should be excluded from a cash flow statement. Examples of such transactions are – acquisition of machinery by issue of equity shares, or redemption of debentures by issue of equity shares. Such transactions should be disclosed elsewhere in the financial statements in a way that provide all the relevant information about these investing and financing activities. Hence, assets acquired by issue of shares are not disclosed in cash flow statement due to non-cash nature of the transaction.

With these three classifications, Cash Flow Statement is shown in Figure 6.1.

Cash Flow Statement
(Main heads only)

(A) Cash flows from operating activities	xxx
(B) Cash flows from investing activities	xxx
(C) Cash flows from financing activities	xxx
Net increase (decrease) in cash and cash equivalents (A + B + C)	xxx
+ Cash and cash equivalents at the beginning	xxx
= Cash and cash equivalents at the end	xxxx

Fig. 6.1 : *Sharing Specimen Cash Flow Statement*

Test your Understanding - I

Classify the following activities into operating activities, investing activities, financing activities, cash activities.

1.	Purchase of machinery.	2.	Proceeds from issuance of equity share capital.
3.	Cash revenue from operations.	4.	Proceeds from long-term borrowings.
5.	Proceeds from sales of old machinery.	6.	Cash receipt from trade receivables.
7.	Trading commission received.	8.	Purchase of non-current investment.
9.	Redemption of preference shares.	10.	Cash purchases.
11.	Proceeds from sale of non-current investment.	12.	Purchase of goodwill.
13.	Cash paid to supplier.	14.	Interim dividend paid on equity shares.
15.	Employee benefits expenses paid.	16.	Proceeds from sale of patents.
17.	Interest received on debentrues held as investments.	18.	Interest paid on long-term borrowings.
19.	Office and administrative expenses paid.	20.	Manufacturing overhead paid.
21.	Dividend received on shares held as investment.	22.	Rent received on property held as investment.
23.	Selling and distribution expenses paid.	24.	Income tax paid.
25.	Dividend paid on preferences shares.	26.	Under writing commission paid.
27.	Rent paid.	28.	Brokerage paid on purchase of non-current investment.
29.	Bank overdraft.		
30.	Cash credit.	31.	Short-term deposit.
32.	Marketable securities.	33.	Refund of income-tax received.

6.6 Ascertaining Cash Flow from Operating Activities

Operating activities are the main source of revenue and expenditure in an enterprise. Therefore, the ascertainment of cash flows from operating activities need special attention.

As per AS-3, an enterprise should report cash flows from operating activities either by using :

- Direct method whereby major classes of gross cash receipts and gross cash payments are disclosed;

or

- Indirect method whereby net profit or loss is duly adjusted for the effects of (1) transactions of a non-cash nature, (2) any deferrals or accruals of past/future operating cash receipts, and (3) items of income or expenses associated with investing or financing cash flows. It is important to mention here that under indirect method, the starting point is net profit/loss before taxation and extra ordinary items as per Statement of Profit and Loss of the enterprise. Then this amount is for non-cash items, etc. adjusted for ascertaining cash flows from operating activities.

Accordingly, cash flow from operating activities can be determined using either the Direct method or the Indirect method. These methods are discussed in detail as follows.

6.6.1 Direct Method

As the name suggests, under direct method, major heads of cash inflows and outflows (such as cash received from trade receivables, employee benefits expenses paid, etc) are considered.

It is important to note here that items are recorded on accrual basis in statement of profit and loss. Hence, certain adjustments are made to convert them into cash basis such as the following :

1. Cash receipts from customers = Revenue from operations + Trade receivables and Bills receivable in the beginning – Trade receivables in the end.
2. Cash payments to suppliers = Purchases + Trade Payable in the beginning – Creditors and Bills Payable in the end.
3. Purchases = Cost of Goods Sold – Opening Inventory + Closing Inventory.
4. Cash Expenses = Expenses on Accrual basis – Prepaid Expenses in the beginning and Outstanding Expenses in the end + Prepaid Expenses in the end and Outstanding Expenses in the beginning.

However, the following items are not to be considered:

1. Non-cash items such as depreciation , discount on shares, etc. be written-off.
2. Items which are classified as investing or financing activities such as interest received, dividend paid, etc.

As per AS-3, under the direct method, information about major classes of gross cash receipts and cash payments may be obtained either–

- from the accounting records of the enterprise, or
- by adjusting sales cost of sales and other items in the statement of profit or loss for the following:
  - changes during the period in inventories and operating receivables and payables;
  - other non-cash items; and
  - other items for which cash effects are investing or financing cash flows.

Figure 6.2 shows the Proforma of cash flows from operating activities using direct method.

Cash Flows from Operating Activities (Direct Method)

	Cash flows from operating activities:	
	Cash receipts from customers	xxx
(–)	Cash paid to suppliers and employees	xxx
=	Cash generated from operations	**xxx**
(–)	Income tax paid	xxx
=	Cash flow before extraordinary items	**xxx**
+/–	Extraordinary items	xxx
=	*Net cash from operating activities*	**xxxx**

Fig. 6.2 : *Proforma of Cash Flows from Operating Activities*

Illustration 1

From the following information, calculate cash flow from operating activities using direct method.

Profit and Loss Account
for the year ended on March 31, 2011

	Particulars	Note	Figures for Current reporting period
i)	Revenue from Operations		2,20,000
ii)	Other Income		-
iii)	Total Revenue (i+ii)		2,20,000
iv)	Expenses		
	Cost of Materials Consumed		1,20,000
	Employees Benefits Expenses		30,000
	Depreciation		20,000
	Other Expenses		
	Insurance Premium		8,000
	Income Tax		10,000
	Total Expenses		1,88,000
v)	Profit before Tax (iii-iv)		32,000

Additional information:

Particulars	April 01, 2010 Rs.	March 31, 2011 Rs.
Trade Receivables	33,000	36,000
Trade Payables	17,000	15,000
Inventory	22,000	27,000
Employees Benefits Expenses	2,000	3,000
Prepaid Insurance	5,000	5,500
Income Tax Outstanding	3,000	2,000

Solution:

Cash Flows from Operating Activities	**(Rs.)**
Cash Receipts from Customers	2,17,000
Cash Paid to Suppliers	(1,27,000)
Cash Paid to Employees	(29,000)
Cash Paid for Insurance Premium	(8,500)
Cash generated from Operations	52,500
Income Tax Paid	(11,000)
Net Cash Inflow from Operations	**41,500**

Working Notes:

1. Cash Receipts from Customers is calculated as under :
   Cash Receipts from Customers = Sales+ Trade Receivables in the beginning – Trade Receivables in the end
   = Rs.2,20,000 + Rs.25,000 + Rs.8,000 – Rs.30,000 – Rs.6,000
   = Rs. 2,17,000
2. Purchases = Cost of Goods Sold – Opening Inventory + Closing Inventory
   = Rs. 1,20,000 – Rs. 22,000 + Rs. 27,000
   = Rs. 1,25,000
3. Cash Payments to Suppliers = Purchases + Trade Payables in the beginning – Trade Payables in the end
   = Rs. 1,25,000 + Rs.17,000 – Rs.15,000
   = Rs. 1,27,000
4. Cash Expenses = Expenses on Accrual basis – Prepaid Expenses in the beginning and Outstanding Expenses in the end + Prepaid Expenses in the end and Outstanding Expenses in the beginning
5. Cash Paid to Employees = Rs. 30,000 + Rs.2,000 – Rs.3,000
   = Rs. 29,000
6. Cash Paid for Insurance Premium = Rs. 8,000 – Rs.5,000 + Rs.5,500
   = Rs. 8,500
7. Income Tax Paid = Rs. 10,000+Rs.3,000 – Rs.2,000
   = Rs. 11,000
8. It is important to note here that there are no extraordinary items.

6.6.2 Indirect Method

Indirect method of ascertaining cash flow from operating activities begins with the amount of net profit/loss. This is not so because statement of profit and loss incorporates the effects of all operating activities of an enterprise. However, income statement is prepared on accrual basis (and not on cash basis). Moreover, it also includes certain non-operating items such as interest paid, profit/loss on sale of fixed assets, etc) and non-cash items (such as depreciation, goodwill to be written-off, etc. Therefore, it becomes necessary to adjust the amount of net profit/loss as shown by Statement of Profit and Loss for arriving at cash flows from operating activities. Let us look at the example :

Statement of Profit and Loss Account
for the year ended March 31, 2013

	Particulars	Note	Figures in Rs.
i)	Revenue from Operations		1,00,000
ii)	Other Income	1	2,000
iii)	Total Revenues (i+ii)		1,02,000
iv)	Expenses		
	Cost of Materials Consumed		30,000
	Purchases of stock-in-trade		10,000
	Employees Benefits Expenses		10,000
	Finance Costs		5,000
	Depreciation		5,000
	Other Expenses		12,000
v)	Profit before Tax (iii-iv)		30,000

Notes

Other income includes profit on sale of land.

The above Profit and Loss Account shows the amount of net profit of Rs.30,000. This has to be adjusted for arriving cash flows from operating activities. Let us take various items one by one.

1. *Depreciation* is a non-cash item and hence, Rs.5,000 charged as depreciation does not result in any cash flow. Therefore, this amount must be added back to the net profit.
2. *Finance costs* of Rs.15,000 is a cash outflow on account of financing activity. Therefore, this amount must also be added back to net profit while calculating cash flows from operating activities. This amount of interest will be shown as an outflow under the head of financing activities.
3. *Other income includes profit on sale of land:* It is cash inflow from investing activity. Hence, this amount must be deducted from the amount of net profit while calculating cash flows from operating activities.

The above example gives you an idea as to how various adjustments are made in the amount of net profit/loss. Other important adjustments relate to changes in working capital which are necessary (i.e. items of current assets and current liabilities) to convert net profit/loss which is based on accrual basis into cash flows from operating activities. Therefore, the increase in current assets and decrease in current liabilities are added to the net profit, and the decrease in current assets and increase in current liabilities are deducted from the net profit so as to arrive at the exact amount of net cash flow from operating activities. As per AS-3, under indirect method, net cash flow from operating activities is determined by adjusting net profit or loss for the effect of :

- Non-cash items such as depreciation, goodwill be written-off, provisions, deferred taxes, etc. which are to be added back.
- All other items for which the cash effects are investing or financing cash flows. The treatment of such items depend upon their nature. All investing and financing incomes are to be deducted from the amount of net profits while all such expenses are to be added back. For example, expenses which is a financing cash outflow is to be added back while fincance income such as interest received which is investing cash inflow is to be deducted from the amount of net profit.
- Changes in current assets and liabilities during the period. Increase in current assets and decrease in current liabilities are to be deducted while increase in current liabilities and decrease in current assets are to be added up.

Figure 6.3 shows the proforma of calculating cash flows from operating activities as per indirect method.

The direct method provides information which is useful in estimating future cash flows. But such information is not available under the indirect method. However, in practice, indirect method is mostly used by the companies for arriving at the net cash flow from operating activities.

Cash Flows from Operating Activities
(Indirect Method)

	Net Profit/Loss before Tax and Extraordinary Items	
+	Deductions already made in Profit and Loss on account of Non-cash items such as Depreciation, Goodwill to be Written-off.	xxx
+	Deductions already made in Profit and Loss on Account of Non-operating items such as Interest.	xxx
–	Additions (incomes) made in Profit and Loss on Account of Non-operating Items such as Dividend Received, Profit on sale of Fixed Assets.	xxx
	Operating Profit before Working Capital changes	
+	Increase in Current Liabilities	xxx
+	Decrease in Current Assets	xxx
–	Increase in Current Assets	xxx

– Decrease in Current Liabilities	xxx
Cash Flows from Operating Activities before Tax and Extraordinary Items.	
– Income Tax Paid	xxx
+/– Effects of Extraordinary Items	xxx
Net Cash from Operating Activities	**xxx**

Fig. 6.2: *Proforma of Cash Flows from Operating Activities (Indirect Method)*

As stated earlier, it may be noted that while working out the cash flow from operating activities, the starting point is the 'Net profit before tax and extraordinary items' and not the 'Net profit as per statement of profit and loss and that the income tax paid is deducted there from as the last item to arrive at the net cash flow from operating activities.

Illustration 2

Using the data given in Illustration 1, calculate cash flows from operating activities using indirect method.

Solution:

Cash Flows from Operating Activities *(Rs.)*

	Net Profit before Taxation and Extraordinary Items (Note 1)	42,000
	Adjustments for–	
+	Depreciation	20,000
=	Operating Profit before working capital changes	62,000
–	Increase in Trade Receivables	(3,000)
–	Increase in Inventories	(5,000)
–	Increase in Prepaid Insurance	(500)
–	Decrease in Trade Payables	(2,000)
+	Increase in Employees Benefits Expenses Payable	+1,000
=	Cash generated from Operations	52,500
–	Income tax paid	(11,000)
=	*Net cash from Operating Activities*	**41,500**

You will notice that the amount of cash flows from operating activities are the same whether we use direct method or indirect method for its calculation.

Notes 1:

The net profit before taxation and extraordinary items has been worked out as under:

(1) Net Profit	=	Rs. 32,000
+ Income Tax provided for Profit and Loss	=	Rs.10,000
= Net Profit before Tax and Extraordinary Items	=	Rs.42,000

Illustration 3

Calculate cash flows from operating activities from the following information.

Statement of Profit and Loss for the year ended March 31, 2013

	Particulars	Note No.	Amount Rs.
i)	Revenue from Operations		50,000
ii)	Other Income	1	5,000
iii)	Total Revenue (i+ii)		55,000
iv)	Expenses		
	Cost of Materials Consumed		15,000
	Employees Benefits Expenses		10,000
	Depreciation and Amortization Expenses	2	7,000
	Other Expenses	3	21,000
v)	Profit before Tax (iii-iv)		2,000

Notes:

1.	Other Income	=	Profit on Sale of Machinery (Rs. 2,000) + Income Tax Refund (Rs. 3,000)
		=	Rs. 5,000
2.	Depreciation and Amortisation Expenses	=	Depreciation (Rs. 5,000) + Goodwill Amortised (Rs. 2,000)
		=	Rs. 7,000
3.	Other Expenses	=	Rent (Rs. 10,000) + Loss on Sale of Equipment (Rs. 3,000) + Provision for Taxation (Rs. 8,000)
		=	Rs. 21,000

Additional Information:

	April 01, 2010 Rs.	March 31, 2011 Rs.
Provision for Taxation	10,000	13,000
Rent Payable	2,000	2,500
Trade Payables	21,000	25,000
Trade Receivables	15,000	21,000
Inventories	25,000	22,000

Solution:

Cash Flows From Operating Activities

Net profit before taxation, and extraordinary items	10,000
Adjustments for:	
+ Depreciation	5,000
+ Loss on sale of equipment	3,000
+ Goodwill amortised	2,000

–	Profit on sale of machinery	(2,000)
–	Income tax refund	(3,000)
	Operating Profit before Working Capital charges	15,000
–	Increase in Trade Receivables	(6,000)
+	Decrease in Inventories	3,000
+	Increase in Trade Payables	4,000
+	Increase in Rent Payable	500
	Cash generated from Operations	16,500
	Income Tax Paid	(5,000)
	Income Tax refund	3,000
	Net Cash from Operating Activities	**14,500**

Working Notes:

1. Net profit before taxation & extraordinary item = Rs. 2,000 + Rs.8,000 = Rs. 10,000
2. Income tax paid during the year has been ascertained by preparing provision for tax account as follows:

Provision for Taxation Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Cash (Income tax paid during the year - Balancing Figure)		5,000	Balance b/d		10,000
			Profit and Loss		8,000
Balance c/d		13,000			
		18,000			**18,000**

Illustration 4

Charles Ltd. made a profit of Rs.1,00,000 after charging depreciation of Rs.20,000 on assets and a transfer to general reserve of Rs.30,000. The goodwill amortised was Rs.7,000 and gain on sale of machinery was Rs.3,000. Other information available to you (charges in the value of current assets and current liabilities) are trade receivables showed an increase of Rs.3,000; trade payables an increase of Rs.6,000; prepaid expenses an increase of Rs.200; and outstanding expenses payable a decrease of Rs. 2,000. Ascertain cash flow from operating activities.

Solution:

	(Rs.)
Net Profit before Taxation	1,00,000
Adjustment for Non-cash and Non-operating Items :	
+ Depreciation	20,000
+ Transfer to general reserve	30,000
+ Goodwill amortized	7,000
– Gain on sale of machinery	(3,000)
Operating profit before working capital	**1,54,000**
Adjustment for working capital charges :	
– Increase in Trade Receivables	(3,000)
+ Increase in Trade Payables	6,000
– Increase in Prepaid Expenses	(200)
– Decrease in Payable Expenses	(2,000)
= Net Cash from Operating Activities	**1,54,800**

Do it Yourself

Statement of Profit and Loss

Particulars	Note	Figures in Rs.
i) Revenue from Operations	1	40,00,000
ii) Other Income	2	21,00,000
iii) Total Revenues		61,00,000
iv) Expenses		
Cost of Materials Consumed	3	20,00,000
Changes in inventories of finished goods	4	1,00,000
Depreciation and Amortisation expenses	5	3,80,000
Other expenses	6	20,40,000
Total expenses		**45,20,000**
v) Profit before Tax (iii-iv)		15,80,000

Notes:

		Rs.
1.	Cash revenue from operations	8,00,000
	Credit revenue from operations	34,00,000
	Less: Returns	(2,00,000)
	Net Revenue from Operations	**40,00,000**
2.	Trading commission	20,40,00
	Discount received from suppliers	60,000
	Other income	**21,00,000**

3.	Cost of materials consumed paid in cash	4,00,000
	Cost of materials consumed bought on credit	17,00,000
	Less: Returns	(1,00,000)
	Cost of materials consumed (Net)	**20,00,000**

4. Changes in Inventories of finished goods = Opening inventory – Closing inventory
= Rs. 2,00,000 - Rs. 1,00,000
= Rs. 1,00,000

5. Depreciation and Amortisation expenses = Depreciation + Amortisation expenses
= Rs. 3,80,000 + 0
= Rs. 3,80,000

6. Other expenses = (a) Administrative expenses (10,20,000) + (b) Discount allowed to customers (1,20,000) + (c) Bad debts (1,00,000) + Provision for tax (8,00,000)
= Rs. 20,40,000

Additional Information:

	(Rs.)	*(Rs.)*
Trade Receivables	20,00,000	40,00,000
Trade Payables	20,00,000	10,00,000
Other Expenses payable (administrative)	10,000	20,000
Prepaid Administrative Expenses	20,000	10,000
Accrued Trading Expenses	20,000	40,000
Advance Trading Expenses	40,000	20,000
Provision for Taxation	10,00,000	12,00,000

Ascertain Cash from Operations. Show your workings clearly.

2. From the following information calculate net cash from operations:

Particulars	*(Rs.)*
Operating Profit after Provision for Tax of Rs. 1,53,000	6,28,000
Insurance proceeds from the famine settlement	1,00,000
Proposed Dividend for the current year	72,000
Depreciation	1,40,000
Loss on Sale of Machinery	30,000
Profit on Sale of Investment	20,000
Dividend Received on Investments	6,000

Decrease in Current Assets (other than cash and cash equivalents)	10,000
Increase in Current Liabilities	1,51,000
Increase in Current Assets other than Cash and Cash Equivalents	6,00,000
Decrease in Current Liabilities	64,000
Income Tax Paid	1,18,000
Refund of Income Tax Received	3,000

Test your Understanding – II

1. Choose one of the two alternatives given below and fill in the blanks in the following statements:

(a) If the net profits earned during the year is Rs. 50,000 and the amount of debtors in the beginning and the end of the year is Rs. 10,000 and Rs. 20,000 respectively, then the cash from operating activities will be equal to Rs. _________________ (Rs. 40,000/Rs. 60,000)

(b) If the net profits made during the year are Rs. 50,000 and the bills receivables have decreased by Rs. 10,000 during the year then the cash flow from operating activities will be equal to Rs. _______________ (40,000/ Rs. 60,000)

(c) Expenses paid in advance at the end of the year are _______________ the profit made during the year (added to/deducted from).

(d) An increase in accrued income during the particular year is _______________ the net profit (added to/deducted from).

(e) Goodwill amortised is _______________ the profit made during the year for calculating the cash flow from operating activities (added to/ deducted from)

(f) For calculating cash flow from operating activities, provision for doubtful debts is _______________ the profit made during the year (added to/ deducted from).

2. While computing cash from operating activities, indicate whether the following items will be added or subtracted from the net profit- if not to be considered, write NC

	Items	*Result*
(a)	Increase in the value of creditors	
(b)	Increase in the value of patents	
(c)	Decrease in prepaid expenses	
(d)	Decrease in income received in advance	
(e)	Decrease in value of inventory	
(f)	Increase in share capital	
(g)	Increase in the value of trade receivables	
(h)	Increase in the amount of outstanding expenses	

(i) Conversion of debentures into shares
(j) Decrease in the value of trade payables
(k) Increase in the value of trade receivables
(l) Decrease in the amount of accrued income.

Sometimes, neither the amount of net profit is specified nor the statement of profit and loss is given. In such a situation, the amount of net profit can be worked out by comparing the balances of statement of profit and loss given in the comparative balance sheets for two years. The difference is treated as the net profit for the year; and, then, by adjusting it with the amount of provision for tax made during the year (as worked out by comparing the provision for tax balances of two years given in balance sheets), the amount of 'Net Profit before tax' can be ascertained (see Illustration (see Illustration 7 and 8).

6.7 Ascertainment of Cash Flow from Investing and Financing Activities

The details of item leading inflows and outflows from investing and financing activities have already been outlined. While preparing the cash flow statement, all major items of gross cash receipts, gross cash payments, and net cash flows from investing and financing activities must be shown separately under the headings 'Cash Flow from Investing Activities' and 'Cash Flow from Financing Activities' respectively.'

The ascertainment of net cash flows from investing and financing activities have been briefly dealt with in Illustrations 5 and 6.

Illustration 5

Welprint Ltd. has given you the following information:

	(Rs.)
Machinery as on April 01, 2012	50,000
Machinery as on March 31, 2013	60,000
Accumulated Depreciation on April 01, 2012	25,000
Accumulated Depreciation on March 31, 2013	15,000

During the year, a Machine costing Rs. 25,000 with Accumulated Depreciation of Rs. 15,000 was sold for Rs. 13,000.

Calculate cash flow from Investing Activities on the basis of the above information.

Solution:

Cash Flows from Investing Activities	*(Rs.)*
Sale of Machinery	13,000
Purchase of Machinery	(35,000)
Net cash used in Investing Activities	**(22,000)**

Working Notes:

Machinery Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Balance b/d		50,000	Cash (proceeds from sale of machine)		13,000
Profit and Loss (profit on sale of machine		3,000	Accumulated Depreciation		15,000
Cash (balancing figure–new machinery purchased)		35,000	Balance c/d		60,000
		88,000			**88,000**

Accumulated Depreciation Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Machinery		15,000	Balance b/d		25,000
Balance c/d		15,000	Profit and Loss (Depreciation provided during the year)		5,000
		30,000			**30,000**

Illustration 6

From the following information, calculate cash flows from financing activities:

	(Rs.)	*(Rs.)*
Long-term Loans	2,00,000	2,50,000

During the year, the company repaid a loan of Rs. 1,00,000.

Solution:

Cash flows from Financing Activities	
Proceeds from long-term borrowings	1,50,000
Repayment of long-term borrowings	(1,00,000)
Net cash inflow from Financing Activities	*50,000*

Working Notes:

Long-term Loan Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Cash (loan repaid)		1,00,000	Balance b/d		2,00,000
Balance c/d		2,50,000	Cash (new loan raised)		1,50,000
		3,50,000			**3,50,000**

Do it Yourself

1. From the following particulars, calculate cash flows from investing activities:

	Purchased (Rs.)	*Sold (Rs.)*
Plant	4,40,000	50,000
Investments	1,80,000	1,00,000
Goodwill	2,00,000	
Patents		1,00,000

Interest received on debentures held as investment Rs. 60,000

Dividend received on shares held as investment Rs. 10,000

A plot of land had been purchased for investment purposes and was let out for commercial use and rent received Rs. 30,000.

2. From the following Information, calculate cash flows from investing and financing activities:

	2010	*2011*
Machine at cost	5,00,000	9,00,000
Accumulated Deprciation	3,00,000	4,50,000
Equity Shares Capital	28,00,000	35,00,000
Bank Loan	12,50,000	7,50,000

In year 2006, machine costing Rs.2,00,000 was sold at a profit of Rs.1,50,000, Depreciation charged on machine during the year 2006 amounted to Rs.2,50,000.

6.8 Preparation of Cash Flow Statement

As stated earlier cash flow statement provides information about change in the position of Cash and Cash Equivalents of an enterprise, over an accounting period. The activities contributing to this change are classified into operating, investing and financing. The methology of working out the net cash flow (or use) from all the three activities for an accounting period has been explained in details and a brief format of Cash Flow Statement has also been given in Fig. 6.1. However, while preparing a cash flow statement, full details of inflows and outflows are given under thehead including the net cash flow (or use) arise there from. The aggregate of the net 'cash flows (or use) is worked out and is shown as, Net Increase Decrease in cash and Cash Equivalents' to which the amount of 'cash and cash equivalent at the beginning' is added and thus the amount of 'cash and cash equivalents at the end' is arrived at as shown in Fig. 6.1. This figure will be the same as the total amount of cash in hand, cash at bank (or overdraft) and cash equivalants (if any) given in the balance sheet (see Illustrations 7 to 10). Another point that needs to be noted is that when cash flows from operating activities are worked out by an indirect method and shown as such in the cash flow statement, the statement itself is termed as 'Indirect method cash flow statement'. Thus, the Cash flow statements prepared in Illustrations 7, 8 and 9 fall under this category as the cash flows from operating activities have been worked out by indirect method. Similarly, if the cash flows from operating activities are worked by direct method while preparing the cash flow statement, it will be termed as 'direct method Cash Flow Statement'. Illustration 10 shows both types of Cash Flow Statement. However, unless it is specified clearly as to which method is to be used, the cash flow statement may preferably be prepared by an indirect method as is done by most companies in practice. Look at these flow statements of Grase in Industries, Ucal Fuel Systems and Sterlite optical Technologies given at the end of the Chapter.

Illustration 7

From the following information, prepare Cash Flow Statement for Pioneer Ltd.

Balance Sheet of Pioneer Ltd. as on March 31, 2014

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital	1	7,00,000	5,00,000
b) Reserve and surplus	2	3,50,000	2,00,000
2. Non-current Liabilities			
a) Long-term borrowings: Bank Loan		50,000	1,00,000
3. Current Liabilities			
a) Trade payables		45,000	50,000
b) Other current liabilities: outstanding rent		7,000	5,000
c) Short-term provisions	3	1,20,000	80,000
Total		**12,72,000**	**9,35,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
(i) Tangible assets	4	5,00,000	5,00,000
(ii) Intangible assets	5	95,000	1,00,000
b) Non-current investments		1,00,000	-
2. Current assets			
a) Inventories		1,30,000	50,000
b) Trade receivables		1,20,000	80,000
c) Cash and cash equivalents	6	3,27,000	2,05,000
Total		**12,72,000**	**9,35,000**

Notes to Accounts:

Particulars	31st March 2014 (Rs.)	31st March 2013 (Rs.)
1. Equity Share Capital	**7,00,000**	**5,00,000**
2. Reserve and Surplus Surplus: i.e. Balance in Statement of Profit and Loss	**3,50,000**	**2,00,000**

3. Short-term Provision:		
Proposed Dividend	70,000	50,000
Provision for Taxation	50,000	30,000
	1,20,000	**80,000**
4. Fixed Assets		
i) Tangible assets		
Equipments	2,30,000	2,00,000
Furniture	2,70,000	3,00,000
	5,00,000	**5,00,000**
5. Intangible Assets		
Patents	**95,000**	**1,00,000**
6. Cash and cash equivalents		
i) Cash	27,000	5,000
ii) Bank balance	3,00,000	2,00,000
	3,27,000	**2,05,000**

During the year, equipment costing Rs. 80,000 was purchased.
Loss on Sale of equipment amounted to Rs. 5,000. Depreciation of Rs. 15,000 and Rs. 3,000 charged on equipments and furniture.

Solution:

Cash Flow Statement

		(Rs.)
I.	**Cash flows from Operating Activities :**	
	Net profit before taxation & extraordinary items	2,00,000
	Provision for :	
	Depreciation on Equipment	15,000
	Depreciation on Furniture	30,000
	Patents Written-off	5,000
	Proposed Dividend	70,000
	Loss on Sale of Equipment	5,000
	Operating Profit before Working Capital Charges	3,25,000
	– Decrease in Creditors	(5,000)
	+ Increase in Outstanding Rent	2,000
	– Increase in Debtors	(40,000)
	– Increase in Goods	(80,000)
	as generated from Operating Activities	
		2,02,000
	(–) Tax Paid	(30,000)
A.	Cash Inflows from Operating Activities	1,72,000
II.	**Cash flows from Investing Activities:**	
	Proceeds from Sale of Equipments	30,000
	Purchase of new Equipment	(80,000)
	Purchase of Investments	(1,00,000)
B.	Cash used in Investing Activities	(1,50,000)

III.	**Cash flows from Financing Activities:**	
	Issues of Equity share capital	2,00,000
	Repayment of bank loan	(50,000)
	Payment of Dividend	(50,000)
C.	Cash Inflows from Financing Activities	**1,00,000**
	Net increase in Cash & Cash Equivalents (A+B+C)	1,22,000
	+ Cash and Cash Equivalents in the beginning	2,05,000
	Cash and Cash Equivalents in the end	**3,27,000**

Working Notes:

(1)

Equipment Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Balance b/d		2,00,000	Depreciation (balancing figure)		15,000
Cash		80,000	Bank		30,000
			Profit & Loss (Loss on sale)		5,000
			Balance c/d		2,30,000
		2,80,000			**2,80,000**

(2) Patents of Rs. 5,000 (i.e. Rs.1,00,000 – Rs. 95,000) were written-off during the year, and depreciation on furniture Rs. 30,000. (Rs. 3,00,000 – Rs. 2,70,000)

(3) It is assumed that dividend of Rs.50,000 and tax of Rs.30,000 provided in 2003-2004 has been paid during the year 2004-05. Hence, proposed dividend and provision for tax during the year amounts to Rs.70,000 and Rs. 50,000 respectively.

		(Rs.)
(4)	Profit and Loss at the end	3,50,000
	(–) Profit and Loss in the beginning	2,00,000
(5)	Net Profit during the year	1,50,000
	+ Provision for Tax during the year	50,000
	Net Profit before Taxation & Extraordinary Items	**2,00,000**

Illustration 8

From the following Balance Sheets of Xerox Ltd., prepare, cash flow statement.

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		15,00,000	10,00,000
b) Reserve and surplus (Balance in Statement of Profit and Loss)		7,50,000	6,00,000
2. Non-current Liabilities			
a) Long-term borrowings	1	1,00,000	2,00,000
3. Current Liabilities			
a) Trade payables		1,00,000	1,10,000
b) Short-term provisions (Provision for taxation)		95,000	80,000
Total		**25,45,000**	**19,90,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
(i) Tangible assets	2	10,10,000	12,00,000
(ii) Intangible assets Goodwill		1,80,000	2,00,000
b) Non-current investment		6,00,000	-
2. Current assets			
a) Inventories		1,80,000	1,00,000
b) Trade Receivables		2,00,000	1,50,000
c) Cash and cash equivalents	3	3,75,000	3,40,000
Total		**25,45,000**	**19,90,000**

Notes to Accounts:

Particulars	31st March 2014 (Rs.)	31st March 2013 (Rs.)
1. Long-term borrowings:		
i) Debentures	-	2,00,000
ii) Bank loan	1,00,000	-
	1,00,000	**2,00,000**
2. Tangible Assets		
i) Land and building	6,50,000	8,00,000
ii) Plant and machinery	3,60,000	4,00,000
	10,10,000	**12,00,000**
3. Cash and cash equivalents		
i) Cash in hand	70,000	50,000
ii) Bank balance	3,05,000	2,90,000
	3,75,000	**3,40,000**

Additional information:

1. Dividend proposed and paid during the year Rs. 1,50,000.
2. Income tax paid during the year includes Rs. 15,000 on account of dividend tax.
3. Land and building book value Rs. 1,50,000 was sold at a profit of 10%.
4. The rate of depreciation on plant and machinery is 10%.

Solution:

Cash Flow Statement

		(Rs.)
I.	**Cash flows from Operating Activities**	*(Rs.)*
	Net Profit before Taxation and Extraordinary Items	2,45,000
	Adjustment for –	
	+ Depreciation	40,000
	+ Goodwill written-off	20,000
	+ Proposed Dividend	1,50,000
	– Profit on Sale of Land	(15,000)
	= Operating Profit before working capital charges	4,40,000
	+ Increase in Creditors	10,000
	– Decrease in Bills Paybles	(20,000)
	– Increase in Debtors	(50,000)
	– Increase in Stock	(80,000)
	= Cash generated from Operations	3,00,000
	– Income Tax Paid (1)	(65,000)
	A. Cash Inflows from Operations	**2,35,000**
II.	**Cash flows from Investing Activities**	
	Proceeds from Sale of Land and Building	1,65,000
	Purchase of Investment	6,00,000
	B. Cash used in Investing Activities	**(4,35,000)**
III.	**Cash flows from Financing Activities**	
	Proceeds from issue of Equity Share Capital	5,00,000
	Redemption of Debentures	(2,00,000)
	Proceeds from raising Bank Loan	1,00,000
	Dividend Paid	(1,50,000)
	Dividend Tax Paid	(15,000)
	C. Cash flows from Financing Activities	**2,35,000**
	Net Increase in cash and cash equivalents (A+B+C)	35,000
	+ Cash and Cash Equivalents in the beginning	3,40,000
	Cash and Cash Equivalent at the end	**3,75,000**

Working Notes:

(1)	Total income tax paid during the year	Rs. 80,0000
	(–) Dividend tax paid (given)	Rs. (15,000)
	Income tax paid for operating activities	**Rs. 65,000**

(2) Net profit earned during the year after tax and dividend

= Rs. 7,50,000 – 6,00,000 = Rs.1,50,000

(3) Net profit before tax

= Rs. 1,50,000 + Provision for tax made

= Rs. 1,50,000 + 95,000 (See provision for taxation account)
= Rs. 2,45,000

Equity Share Capital Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Balance c/d		15,00,000	Balance b/d		10,00,000
			Cash (New capital raised)		5,00,000
		15,00,000			**15,00,000**

Debenture Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Cash (Redemption)		20,000	Balance b/d		20,000
		20,000			**20,000**

Bank Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Balance c/d		1,00,000	Cash		1,00,000
		1,00,000			**1,00,000**

Provision for Taxation Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Cash (Tax paid- which includes Rs. 15,000 as dividend		80,000	Balance b/d		80,000
Balance c/d		95,000	Profit and Loss (Provision made during the year)		95,000
		1,75,000			**1,75,000**

Land and Building Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Balance b/d		8,00,000	Cash		1,65,000
Profit and Loss (Profit on sale)		15,000	Balance c/d		6,50,000
		8,15,000			**8,15,000**

Proposed Dividend Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Cash		1,50,000	Profit and Loss		1,50,000
		1,50,000			**1,50,000**

Plant and Machinery Account

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Balance b/d		4,00,000	Depreciation		40,000
					3,60,000
		4,00,000			**4,00,000**

Illustration 9

From the following information of Oswal Mills Ltd., prepare cash flow statement:

(Rupees in Lakh)

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital	1	1,300	1,400
b) Reserve and surplus (Surplus)		4,700	4,000
2. Current Liabilities			
a) Short-term loan		200	600
b) Trade payables		500	400
Total		**6,700**	**6,400**
II. Assets			
1. Non-current assets			
a) Fixed assets	2	2,400	2.400
b) Non-current investments		300	200
2. Current assets			
a) Inventories		1,200	1,300
b) Trade receivables		800	900
c) Cash and cash equivalents		1,200	800
d) Short-term loan and advance		800	800
Total		**6,700**	**6,400**

Notes to Accounts:

Particulars	31st March 2014 (Rs.)	31st March 2013 (Rs.)
1. Share capital		
Equity share capital	1,000	1,000
10% preference share capital	300	400
	1,300	**1,400**
2. Fixed assets	3,600	3,400
i) Tangible assets		
Less: Accumlated depreciation	(1,200)	(1,000)
	2,400	**2,400**

(Rupees in Lakh)

Particulars	Note No.	31st March 2014 (Rs.)	-
I. Revenue from operation		2,800	-
II. Other income (dividend income)		1,000	-
III. Total Revenue		3,800	-
IV. Expenses			-
Cost of material consumed		400	-
Employees benefits expenses		200	-
Finance cost (interest paid)		200	-
Depreciation		200	-
Loss due to earthquake		1,100	-
V. Profit before tax		1,700	-
VI. Tax paid		1,000	-
Profit after tax		700	-

Additional information:

1. No dividend paid by the company during the current financial year.
2. Out of fixed assets, lands worth Rs. 1,000 Lac having no accumulated depreciation was sold at no profit or no loss.

Solution:

Cash Flow Statement

Cash Flows from Operating Activities

Net Profit before Tax and Extraordinary Items (1)	2,800
Adjustment for :	
+ Interest paid	200
+ Depreciation	200
Operating profit before working capital charges	3,200
Adjustment for :	
+ Decrease in Inventories	100
+ Decrease in Sundry Debtors	100

	+ Increase in Sundry Creditors	100
	– Decrease in Short-term Loans	(400)
Cash generated from Operations		3,100
	(–) Income Tax Paid	(1,000)
	(–) Loss due to earthquake	(1,100)
A.	Net cash from Operating Activities	1,000
Cash flows from Investing Activities		
	Sale of Land (2)	1,000
	Purchase of Fixed Assets (2)	(1,200)
	Purchase of Investments	(100)
B.	Net cash	(300)
Cash flows from Financing Activities		
	Interest Paid	(200)
	Redemption of Capital	(100)
		(300)
C.	Net Cash used in Financing Activities	
	Net increase in Cash and Cash Equivalents during the year (A+B+C)	400
	+ Cash and Cash Equivalents in the beginning of the year	800
	= Cash and Cash Equivalents in the end	**1,200**

Working Notes:

(Rs. in lakh)

(1) Net Profit before Tax and Extraordinary Items = Rs. 700 + Rs.1,100 + Rs.1,000
= Rs. 2,800

(2) **Fixed Assets Account**

Dr. *Cr.*

Particulars	*J.F.*	*Amount (Rs.)*	*Particulars*	*J.F.*	*Amount (Rs.)*
Balance b/d		3,400	Cash (Sale of land)		1,000
Cash (Purchase of fixed assets)		1,200	Balance c/d		3,600
		4,600			**4,600**

Accumulated Depreciation Account

Dr. Cr.

Particulars	J.F.	Amount (Rs.)	Particulars	J.F.	Amount (Rs.)
Balance c/d		1,200	Balance b/d		1,000
			Profit and Loss		200
		1,200			**1,200**

Illustration 10

From the following information of Banjara. Prepare a cash flow statement:

(Rupees in '000)

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		1,500	1,250
b) Reserve and surplus (Surplus)		3,410	1,380
2. Non-current Liabilities			
a) Long-term borrowings (Long-term loan)		1,110	1,040
3. Current Liabilities			
a) Trade payables		150	1,890
b) Other current liabilities	1	630	1,100
Total		**6,800**	**6,660**
II. Assets			
1. Non-current assets			
a) Fixed assets	2	730	850
b) Non-current investments		2,500	2,500
2. Current assets			
a) Current investments (Marketable)		670	135
b) Inventories		900	1,950
c) Trade Receivables		1,700	1,200
d) Cash and cash equivalents		200	25
e) Other current assets (Interest receivables)		100	-
Total		**6,800**	**6,660**

Notes to Accounts:

Particulars	31st March 2014 (Rs.)	31st March 2013 (Rs.)
1. Other Current Liabilities		
i) Interest payable	230	100
ii) Income tax payable	400	1,000
	630	**1,100**

2. Fixed Assets:		
i) Tangible	2,180	1,910
Less: Accumlated depreciation	(1,450)	(1,060)
	730	**850**

Statement of Profit and Loss for the year ended 31st March, 2014

(Rupees in '000)

Particulars	Note No.	31st March 2014 (Rs.)
I. Revenue from operation		30,650
II. Other income	1	640
III. Total Revenue		**31,290**
IV. Expenses		
Cost of material consumed		26,000
Finance cost (interest expenses)		400
Depreciation		450
Other expenses (Admn. and selling expenses)		910
Total expenses		**27,760**
Profit before tax		3,530
Less: Tax		(300)
Profit after tax		**3,230**

Note:- Long term Borrowings made during the year 2013-14 were of Rs 2,50,000

Solution:

Cash Flow Statement (Direct Method)

(Rs.'000)

Cash Flows from Operating Activities		
Cash Receipts from Customers	30,150	
Cash Paid to Suppliers and Employees	(27,600)	
Cash generated from Operations	2,550	
Income Tax paid	(860)	
Cash Flow before Extraordinary Item	1,690	
Proceeds from earthquake disaster settlement	140	
Net Cash from Operating Activities		1,830
Cash Flows from Investing Activities		
Purchase of Fixed Assets	(350)	
Proceeds from Sale of Equipment	20	
Interest Received	200	
Dividends Received	160	
Net cash from Investing Activities		30

Cash Flows from Financing Activities		
Proceeds from issuance of Share Capital	250	
Proceeds from Long-term Borrowings	250	
Repayment of Long-term Borrowings	(180)	
Interest paid	(270)	
Dividends paid	(1,200)	
Net cash used in Financing Activities	(1,150)	(1,150)
Net increase in Cash and Cash Equivalents		710
Cash and cash equivalents at beginning of period		160
Cash and cash equivalents at end of period		870

Cash Flow Statement
(Indirect Method)

(Rs.'000)

Cash Flows from Operating Activities		
Net Profit before Taxation and Extraordinary Item		3,390
Adjustments for:		
+	Depreciation	450
–	Interest Income	(300)
–	Dividend Income	(200)
+	Interest Expense	400
Operating Profit before working capital charges		3,740
Increase in Sundry Debtors		(500)
Decrease in Inventories		1,050
Decrease in Sundry Creditors		(1,740)
Cash generated from Operations		2,550
Income Tax paid		(860)
Cash flow before Extraordinary Items		1,690
Proceeds from earthquake disaster settlement		140
Net cash from Operating Activities		**1,830**
Cash Flows from Investing Activities		
Purchase of Fixed Assets		(350)
Proceeds from Sale of Equipment		20
Interest Received		200
Dividends Received (net of TDS)		160
Net cash from Investing Activities		**30**

Cash flows from Financing Activities	
Proceeds from issuance of Share Capital	250
Proceeds from Long-term Borrowings	250
Repayment of Long-term Borrowings	(180)
Interest Paid	(270)
Dividends Paid	(1,200)
Net Cash used in Financing Activities	**(1,150)**
Net Increase in Cash and Cash Equivalents	710
Cash and Cash Equivalents at the beginning of the period	160
Cash and Cash Equivalents at the end of the period	**870**

Working Notes:

(1) *Cash and Cash Equivalents*

Cash and Cash Equivalents consist of cash on hand and balances with banks, and investments in money-market instruments. Cash and Cash Equivalents included in the Cash Flow Statement comprise the following balance sheet amounts.

(Rs.'000)

	2006 (Rs.)	*2005 (Rs.)*
Cash in Hand and balances with Bank	200	25
Short-term Investments	670	135
Cash and Cash Equivalents	870	160

(2) *Cash Receipts from Customers*

Sales	30,650
Add: Sundry Debtors at the beginning of the year	1,200
	31,850
Less : Sundry Debtors at the end of the year	1,700
	30,150

(3) *Cash paid to Suppliers and Employees*

Cost of Sales		26,000
Administrative and Selling Expenses		910
		26,910
Add: Sundry Creditors at the beginning of the year	1,890	
Inventories at the end of the year	900	2,790
		29,700
Less : Sundry Creditors at the end of the year	150	
Inventories at the beginning of the year	1,950	2,100
		27,600

(4) *Income Tax paid (including TDS from dividends received)*

Income Tax expense for the year (including tax deducted at source from dividends received)	300
Add : Income Tax liability at the beginning of the year	1,000
	1,300
Less : Income Tax liability at the end of the year	400
	900

Out of Rs. 900, tax deducted at source on dividends received (amounting to Rs. 40) is included in cash flows from investing activities and the balance of Rs. 860 is included in cash flows from operating activities.

(5) *Repayment of Long-term Borrowings*

Long-term Debts at the beginning of the year	1,040
Add : Long-term Borrowings made during the year	250
	1,290
Less : Long-term Borrowings at the end of the year	1,110
	180

(6) *Interest paid*

Interest expense for the year	400
Add: Interest Payable at the beginning of the year	100
	500
Less: Interest Payable at the end of the year	230
	270

Terms Introduced in the Chapter

1. Cash
2. Cash Equivalents
3. Cash Inflows
4. Cash Outflows
5. Non-cash item
6. Cash Flow Statement
7. Operating Activities
8. Investing Activities
9. Financing Activities
10. Accounting Standard 3
11. Extraordinary Items

Summary

Cash Flow Statement: The Cash Flow Statement helps in ascertain in the liquidity of an enterprise. Cash Flow Statement is to be prepared and reported by Indian companies enterprises according to AS-3 issued by The Institute of Chartered Accountants of India. The cash flows are categorised into flows from operating, investing and financing activities. This statement helps the users to ascertain the amount and certainty of cash flows to be generated by company.

Question for Practice

Short Answer Questions

1. What is a Cash flow statement?
2. How the various activities are classified (as per AS-3 revised) while preparing cash flow statement?
3. State the uses of cash flow statement?
4. What are the objectives of preparing cash flow statement.
5. State the meaning the terms: (i) Cash Equivalents, (ii) Cash flows.
6. Prepare a format of cash flow from operating activities under and indirect method.
7. State clearly what would constitute the operating activities for each of the follow in the following of enterprises:
   - (i) Hotel
   - (ii) Film production house
   - (iii) Financial enterprise
   - (iv) Media enterprise
   - (v) Steel manufacturing unit
   - (vi) Software development business unit.
8. "The nature/type of enterprise can change altogether the category into which a particular activity may be classified." Do you agree? Illustrate your answer.

Long Answer Questions

1. Describe the procedure to prepare Cash Flow Statement.
2. Describe "Indirect" method of ascertaining Cash Flow from operating activities.

3. Explain the major Cash Inflows and outflows from investing activities.
4. Explain the major Cash Inflows and outflows from financing activities.

Numerical Questions

1. Anand Ltd. arrived at a net income of Rs. 5,00,000 for the year ended March 31, 2007. Depreciation for the year was Rs. 2,00,000. There was again of Rs. 50,000 on assets sold which was credited to profit and loss account. Bills Receivables increased during the year Rs. 40,000 and Bills Payables also increased by Rs. 60,000. Compute the cash flow operating activities by the indirect approach.
2. From the information given below you are required to prepare the cash paid for the inventory:

	(Rs.)
Inventory in the beginning	40,000
Purchases	1,60,000
Inventory in the end	38,000
Trade payables in the beginning	14,000
Trade payables in the end	14,500

[**Ans.:** Rs. 1,59,500]

3. For each of the following transactions, calculate the resulting cash flow and state the nature of cash flow, viz. operating, investing and financing.
   (a) Acquired machinery for Rs. 2,50,000 paying 20% drawn and executing a bond for the balance payable.
   (b) Paid Rs. 2,50,000 to acquire shares in Informa Tech. and received a dividend of Rs. 50,000 after acquisition.
   (c) Sold machinery of original cost Rs. 2,00,000 with an accumulated depreciation of Rs. 1,60,000 for Rs. 60,000.

[**Ans.:** Rs. 50,000 investing flow (outflow); Rs. 2,00,000 investing flow (outflow); Rs. 60,000 investing flow (inflow).

4. The following is the Profit and Loss Account of Yamuna Limited:

Statement of Profit and Loss of Yamuna Ltd.
for the Year ended March 31, 2013

Particulars	Note No.	Amount (Rs.)
i) Revenue from Operations		10,00,000
ii) Expenses		
Cost of Materials Consumed	1	50,000
Purchases of Stock-in-trade		5,00,000
Other Expenses	2	3,00,000
Total Expenses		**8,50,000**
iii) Profit before tax (i-ii)		1,50,000

Additional information:

(i) Trade receivables decrease by Rs. 30,000 during the year.
(ii) Prepaid expenses increase by Rs. 5,000 during the year.
(iii) Trade payables decrease by Rs. 15,000 during the year.
(iv) Outstanding Expenses payable increased by Rs. 3,000 during the year.
(v) Other expenses included depreciation of Rs. 25,000.

Compute net cash provided by operations for the year ended March 31, 2014 by the indirect method.

[**Ans.:** Cash provided from operations Rs. 2,18,000].

5. Compute cash from operations from the following figures:

(i) Profit for the year 2013-14 is a sum of Rs. 10,000 after providing for depreciation of Rs. 2,000.
(ii) The current assets of the business for the year ended March 31, 2013 and 2014 are as follows:

	March 31, 2013 (Rs.)	*March 31, 2014 (Rs.)*
Trade Receivables	14,000	15,000
Provision for Doubtful Debts	1,000	1,200
Trade Payables	13,000	15,000
Inventories	5,000	8,000
Short-term Investments	10,000	12,000
Expenses payable	1,000	1,500
Prepaid Expenses	2,000	1,000
Accrued Income	3,000	4,000
Income received in advance	2,000	1,000

[**Ans.:** Cash from operations: Rs. 7,700].

6. From the following particulars of Bharat Gas Limited, calculate Cash Flows from Investing Activities. Also show the workings clearly preparing the ledger accounts:

Balance Sheet of Bharat Gas Ltd. as on ___________________

Particulars	Note No.	Figures as the end of 2011 (Rs.)	Figures as at the end of reporting 2010 (Rs.)
II) Assets			
1. Non-current Assets			
a) Fixed assets			
i) Tangible assets	1	12,40,000	10,20,000
ii) Intangible assets	2	4,60,000	3,80,000
b) Non-current investments	3	3,60,000	2,60,000

Notes 1 Tangible assets = Machinery
2 Intangible assets = Patents

Notes

	Figures of current year	Figures of previous year
1. Tangible Assets		
Machinery	**12,40,000**	**10,20,000**
2. Intangible Assets		
Goodwill	3,00,000	1,00,000
Patents	1,60,000	2,80,000
	4,60,000	**3,80,000**
3. Non-current Investments		
10% long term investments	1,60,000	60,000
Investment in land	1,00,000	1,00,000
Shares of Amartex Ltd.	1,00,000	1,00,000
	3,60,000	**2,60,000**

Additional Information:

(a) Patents were written-off to the extent of Rs. 40,000 and some Patents were sold at a profit of Rs. 20,000.

(b) A Machine costing Rs. 1,40,000 (Depreciation provided thereon Rs. 60,000) was sold for Rs. 50,000. Depreciation charged during the year was Rs. 1,40,000.

(c) On March 31, 2007, 10% Investments were purchased for Rs. 1,80,000 and some Investments were sold at a profit of Rs. 20,000. Interest on Investment was received on March 31, 2011.

(d) Amartax Ltd. paid Dividend @ 10% on its shares.

(e) A plot of Land had been purchased for investment purposes and let out for commercial use and rent received Rs. 30,000.

[**Ans.:** Rs. 5,24,200].

7. From the following Balance Sheet of Mohan Ltd. Prepare cash flow Statement:

Balance Sheet of Mohan Ltd. as at 2013

Particulars	Note No.	2011 (Rs.)	2010 (Rs.)
I) Equity and Liabilities			
1. Shareholders' Funds			
a) Equity share capital		3,00,000	2,00,000
b) Reserves and surplus		2,00,000	1,60,000
2.			
3. Non-current liabilities			
a) Long-term borrowings	1	80,000	1,00,000
4. Current liabilities			
Trade payables		1,20,000	1,40,000
Short-term provisions	2	70,000	60,000
Total		**7,70,000**	**6,60,000**
II) Assets			
1. Non-current assets			
a) Fixed assets	3	5,00,000	3,20,000
2. Current assets			
a) Inventories		1,50,000	1,30,000
b) Trade receivables	4	90,000	1,20,000
c) Cash and cash equivalents	5	30,000	90,000
Total		**7,70,000**	**6,60,000**

Notes

	2011	2010
1. Long-term borrowings		
Bank Loan	**80,000**	**1,00,000**
2. Short-term provision		
Proposed dividend	**70,000**	**60,000**
3. Fixed assets	6,00,000	4,00,000
Less: Accumulated Depreciation	1,00,000	80,000
(Net) Fixed Assets	**5,00,000**	**3,20,000**
4. Trade receivables		
Debtors	60,000	1,00,000
Bills receivables	30,000	20,000
	90,000	**1,20,000**
5. Cash and cash equivalents		
Bank	**30,000**	**90,000**

Additional Information:

Machine Costing Rs. 80,000 on which accumulated depreciation was Rs, 50,000 was sold for Rs. 20,000.

		Rs.
[**Ans.:**	Cash flow from Operating Activities	1,80,000
	Cash flow from Invisiting Activities	(2,60,000)
	Cash flow from Financing Activities	20,000.

8. From the following Balance Sheets of Tiger Super Steel Ltd., prepare Cash Flow Statement:

Balance Sheet of Tiger Super Steel Ltd.

Particulars	Note No.	2011 (Rs.)	2010 (Rs.)
I) Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital	1	1,30,000	1,20,000
b) Reserves and surplus	2	22,800	15,200
2. Current Liabilities			
a) Trade payables	3	21,200	14,000
b) Other current liabilities	4	2,400	3,200
c) Short-term provisions	5	38,400	22,400
		2,14,800	**1,74,800**
II) Assets			
1. Non-Current Assets			
a) Fixed assets			
i) Tangible assets	6	96,400	76,000
ii) Intangible assets		18,800	24,000
b) Non-current investments		14,000	4,000
2. Current Assets			
a) Inventories		31,200	34,000
b) Trade receivables		43,200	30,000
c) Cash and cash equivalents		11,200	6,800
		2,14,800	**1,74,800**

Notes

	2011	2010
1. Share Capital		
Equity share capital	1,20,000	80,000
10% Preference share capital	20,000	40,000
	1,40,000	1,20,000
2. Reserves and surplus		
General reserve	12,000	8,000
Balance in statement of profit and loss	10,800	7,200
	22,800	**15,200**
3. Trade payables		
Bills payable	21,200	14,000
4. Other current liabilities		
Outstanding expenses	**2,400**	**3,200**
5. Short-term provisions		
Provision for taxation	12,800	11,200
Proposed dividend	15,600	11,200
	38,400	**22,400**

6. Tangible assets		
Land and building	20,000	40,000
Plant	76,400	36,000
	96,400	**76,000**

Additional Information:

Depreciation Charge on Land & Building Rs. 20,000, and Plant Rs. 10,000 during the year.

[**Ans.:** Cash flow from Operating Activities Rs. 34,800
Cash flow from Invisiting Activities Rs. (50,400)
Cash flow from Financing Activities Rs. 20,000].

9. From the following information, prepare cash flow statement:

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		7,00,000	5,00,000
b) Reserve and surplus		4,70,000	2,50,000
2. Non-current Liabilities (8% Debentures)		4,00,000	6,00,000
3. Current Liabilities			
a) Trade payables		9,00,000	6,00,000
Total		**24,70,000**	**19,50,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
i) Tangible		7,00,000	5,00,000
ii) Intangible–Goodwill		1,70,000	2,50,000
2. Current assets			
a) Inventories		6,00,000	5,00,000
b) Trade Receivables		6,00,000	4,00,000
c) Cash and cash equivalents		4,00,000	3,00,000
Total		**24,70,000**	**19,50,000**

Additional Information:

Depreciation Charge on Plant amount to Rs. 80,000.

Rs.

[**Ans.:** Cash inflow from Operating Activities 3,80,000
Cash inflow from Invisiting Activities (2,80,000)
Cash inflow from Financing Activities NIL.

10. From the following Balance Sheet of Yogeta Ltd., prepare cash flow statement:

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital	1	4,00,000	2,00,000
b) Reserve and surplus–Surplus		2,00,000	1,00,000
2. Non-current Liabilities			
a) Long-term borrowings	2	1,50,000	2,20,000
3. Current Liabilities			
a) Short-term borrowings (Bank overdraft)		1,00,000	-
b) Trade payables		70,000	50,000
c) Short-term provision (Provision for taxation)		50,000	30,000
Total		**9,70,000**	**6,00,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
i) Tangible		7,00,000	4,00,000
2. Current assets			
a) Inventories		1,70,000	1,00,000
b) Trade Receivables		1,00,000	50,000
c) Cash and cash equivalents		-	50,000
Total		**9,70,000**	**6,00,000**

Notes to Accounts

Particulars	31st March 2014 (Rs.)	31st March 2013 (Rs.)
1. Share capital		
a) Equity share capital	3,00,000	2,00,000
b) Preference share capital	1,00,000	-
	4,00,000	**2,00,000**
2. Long term borrowings		
Long-term loan	-	2,00,000
Long-term Rahul	1,50,000	20,000
	1,50,000	**2,20,000**

Additional Information:

Net Profit for the year after charging Rs. 50,000 as Depreciation was Rs. 1,50,000. Dividend paid on Share was Rs. 50,000, Tax Provision created during the year amounted to Rs. 60,000.

	Rs.
[**Ans.:** Cash from Operating Activities	2,20,000
Cash from Invisiting Activities	(3,50,000)
Cash from Financing Activities	(80,000)].

11. Following is the Financial Statement of Garima Ltd., prepare cash flow statement.

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital	1	4,40,000	2,80,000
b) Reserve and surplus–Surplus	2	40,000	28,000
2. Current Liabilities			
a) Trade payables		1,56,000	56,000
b) Short-term provisions (Provision for taxation)		12,000	4,000
Total		**6,48,000**	**3,68,000**
II. Assets			
1. Non-current assets			
a) Fixed assets			
i) Tangible		3,64,000	2,00,000
2. Current assets			
a) Inventories		1,60,000	60,000
b) Trade receivables		80,000	20,000
c) Cash and cash equivalents		28,000	80,000
d) Other current assets		16,000	8,000
Total		**6,48,000**	**3.68,000**

Notes to Accounts

Particulars	31st March 2014 (Rs.)	31st March 2013 (Rs.)
1. Share capital		
a) Equity share capital	3,00,000	2,00,000
b) Preference share capital	1,40,000	80,000
	4,40,000	**2,80,000**
2. Reserve and surplus		
Surplus in statement of profit and loss at the beginning of the year	28,000	
Add: Profit of the year	16,000	
Less: Dividend	4,000	
Profit at the end of the year	**40,000**	

Interest paid on Debenture Rs. 600

	Rs.
[**Ans.:** Cash Outflow (use) from Operating Activities	(12,000)
Cash flow from Investing Activities	(1,96,000)
Cash flow from Financing Activities	(1,56,000)].

12. From the following Balance Sheet of Computer India Ltd., prepare cash flow statement.

(Rs. in '000)

Particulars	Note No.	31st March 2014 (Rs.)	31st March 2013 (Rs.)
I. Equity and Liabilities			
1. Shareholders' Funds			
a) Share capital		50,000	40,000
b) Reserve and surplus–Surplus	1	3,700	3,000
2. Non-Current Liabilities			
10% Debentures		6,500	6,000
Current liabilities			
a) Short-term borrowings	2	6,800	12,500
b) Trade payables		11,000	12,000
c) Short-term provisions	3	10,000	8,000
Total		**88,000**	**81,500**
II. Assets			
1. Non-current assets			
a) Fixed assets	4	25,000	30,000
2. Current assets			
a) Inventories		35,000	30,000
b) Trade receivables		24,000	20,000
c) Cash and cash equivalents–cash		3,500	1,200
d) Other current assets–prepaid exp.		500	300
Total		**88,000**	**81,500**

Notes to Accounts

Particulars	31st March 2014 (Rs.)	31st March 2013 (Rs.)
1. Reserve and surplus		
i) Balance in statement of profit and loss	1,200	1,000
ii) General reserve	2,500	2,000
	3,700	**3,000**
2. Short-term borrowings		
i) Bank overdraft	6,800	12,500
ii) Short-term provisions		
iii) Provision for taxation	4,200	3,000
iv) Proposed dividend	5,800	5,000
	16,800	**20,500**

Additional Information:

Interest paid on Debenture Rs. 600

	Rs.
[**Ans.:** Net Cash from Operating Activities	2,100
Net Cash from Invisiting Activities	Rs. 1,000
Net Cash from Financing Activities	Rs. 4,900

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Project Work

1. Read and analyse the cash flow statements as given in the Annual Report of any three listed companies etc. and ascertain:
   - (i) which method (direct or indirect) is used for the purpose of calculating cash flows from operating activities;
   - (ii) the treatment of special items such as dividend tax, profit/loss on sale of fixed assets, depreciation of extraordinary items, etc.
   - (iii) Whether all companies follow the same proforma of cash flow statement or different ones.
   - (iv) As to whether you think that companies properly highlight cash flow statement in their Annual Reports.

2. "Why companies must necessarily prepare and present a statement of cash flows". Discuss it in the classroom. Comment.

Long Answer Question

3. You analyse the cash flow statement for the past 3 years for a company chosen by you and find out-
   - (i) Whether has there been net increase in cash and cash equivalents over the years.
     If, net cash flow from operating activities have been negative throughout. What may be the possible reasons for the situation. What would be the possible reasons your perception about the functioning of the company.

Answers to Test your Understanding

Test your Understanding – I

Answer : a) Operating activities - 3, 6, 7, 10, 13, 15, 19, 20, 23, 24, 27;
b) Investing activities - 1, 5, 8, 11, 12, 16, 17, 21, 22, 29;
c) Financing activities - 2, 4, 9, 14, 18, 25, 26, 28;
d) Cash equivalents - 30, 31, 32, 33.

Test your Understanding – II

Answers: (a) 40,000, (b). 60,000, (c) deducted from,

(d) deducted from, (e) added to, (f) added to

Answers: 1. +, 2. NC, 3. +, 4. -, 5. +, 6. NC, 7. -, 8 +, 9. NC, 10 -, 11 -, 12 +