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Financial Accounting and Management

Dr. Babasaheb Ambedkar Open University

Financial Accounting and Management

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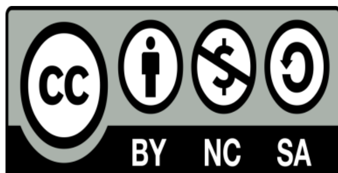

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Index

Unit	Details	Page No
1	**INTRODUCTION TO ACCOUNTING**	8-21
	1.1 Learning Objectives	
	1.2 Introduction	
	1.3 Meaning of Book-Keeping	
	1.4 Meaning and Objectives of Accounting	
	1.5 Functions of Accounting	
	1.6 Accounting as a Source of Information	
	1.7 Characteristics of Accounting Information	
	1.8 Basic Terms Used in Accounting	
	1.9 Let Us Sum Up	
	1.10 Further Reading	
	1.11 Check your progress	
2	**GENERALLY ACCEPTED ACCOUNTING PRINCIPLES**	22-35
	2.1 Learning Objectives	
	2.2 Introduction	
	2.3 Meaning of Accounting Principles, Concepts, Conventions and Postulates	
	2.4 Meaning and Features of Generally Accepted Accounting Principles (GAAP)	
	2.5 Structure of GAAP	
	2.6 Let Us Sum Up	
	2.7 Further Reading	
	2.8 Check your progress	
	2.9 Answers to Check Your Progress	
	2.10 Assignment	
3	**ACCOUNTING STANDARDS**	36-42
	3.1 Learning Objectives	
	3.2 Introduction	
	3.3 Meaning and Needs of Accounting Standards	
	3.4 Objectives of Accounting Standards	

Unit	Details	Page No
	3.5 Advantages of Accounting Standards	
	3.6 Authorities for Setting Accounting Standards in India	
	3.7 Let Us Sum Up	
	3.8 Further Reading	
	3.9 Check your progress	
	3.10 Answers to Check Your Progress	
	3.11 Assignment	
4	**ACCOUNTING PROCESS-I**	43-61
	4.1 Learning Objectives	
	4.2 Introduction	
	4.3 Meaning of Account	
	4.4 Meaning of Debit and Credit	
	4.5 System of Book-Keeping	
	4.6 Double-Entry System	
	4.7 Classification of Accounts	
	4.8 Rules for Debit and Credit	
	4.9 Let Us Sum Up	
	4.10 Further Reading	
	4.11 Check your progress	
	4.12 Answers to Check Your Progress	
	4.13 Assignment	
5	**ACCOUNTING PROCESS-II**	62-88
	5.1 Learning Objectives	
	5.2 Introduction	
	5.3 Meaning of Books of Account	
	5.4 Meaning of Journal	
	5.5 Journalising	
	5.6 Subsidiary Books of Accounts	
	5.7 Meaning of Ledger	
	5.8 Meaning of Ledger Posting	
	5.9 Rules Regarding Posting	

Unit	Details	Page No
	5.10 Balancing of an Account	
	5.11 Let Us Sum Up	
	5.12 Further Reading	
	5.13 Check your progress	
	5.14 Answers to Check Your Progress	
	5.15 Assignment	
6	**CASH BOOK**	89-102
	6.1 Learning Objectives	
	6.2 Introduction	
	6.3 Meaning of Cash Book and Pass Book	
	6.4 Importance of Cash Book	
	6.5 Different Types of Cash Book	
	6.6 Illustrations	
	6.7 Petty Cash Book and Imprest System	
	6.8 Let Us Sum Up	
	6.9 Further Reading	
	6.10 Check your progress	
	6.11 Answers to Check Your Progress	
	6.12 Assignment	
7	**TRIAL BALANCE**	103-116
	7.1 Learning Objectives	
	7.2 Introduction	
	7.3 Concept of Trial Balance	
	7.4 Objects of Trial Balance	
	7.5 Format of a Trial Balance	
	7.6 Preparation of Trial Balance	
	7.7 Limitations of Trial Balance	
	7.8 Let Us Sum Up	
	7.9 Further Reading	
	7.10 Check your progress	
	7.11 Answers to Check Your Progress	

Unit	Details	Page No
	7.12 Assignment	
8	**PREPARATION OF FINAL ACCOUNTS**	117-133
	8.1 Learning Objectives	
	8.2 Introduction	
	8.3 Meaning of Final Accounts	
	8.4 Trading Account	
	8.5 Profit and Loss Account	
	8.6 Balance Sheet	
	8.7 Let Us Sum Up	
	8.8 Further Reading	
	8.9 Check your progress	
	8.10 Answers to Check Your Progress	
	8.11 Assignment	
9	**Cash and Receivables**	134-173
	9.1 Learning Objectives	
	9.2 Internal control	
	9.3 Petty cash	
	9.4 Cash Collections and Payments	
	9.5 Accounts Receivable	
	9.6 Short-Term Notes Receivable	
	9.7 Appendix A: Ratio Analysis—Acid Test	
	9.8 Appendix B: Ratio Analysis—Accounts Receivable Turnover	
	9.9 Let Us Sum Up	
	9.10 Check your progress	
	9.11 Answer to Check Your Progress	
	9.12 Further Reading	
	9.13 Assignments	
10	**Accounting for the sale of goods**	174-203
	10.1. Learning Objectives	
	10.2. The Basics of Merchandising	

Unit	Details	Page No
	10.3. The Purchase and Payment of Merchandise Inventory (Perpetual)	
	10.4. Merchandise Inventory: Sales and Collection (Perpetual)	
	10.5. Adjustments to Merchandise Inventory (Perpetual)	
	10.6. Closing entries for a Merchandiser	
	10.7. Appendix A: The Periodic Inventory System	
	10.8. Let us sum up	
	10.9. Check your progress	
	10.10. Answer to Check Your Progress	
	10.11. Further Reading	
	10.12. Assignment	
11	**PARTNERSHIP-I**	204-220
	11.1. Learning Objectives	
	11.2. Introduction	
	11.3. Meaning and Features of Partnership Business	
	11.4. Advantages and Disadvantages of Partnership	
	11.5. Meaning of Partnership Deed	
	11.6. Capital Accounts of Partners	
	11.7. Distinctions between Fixed and Fluctuating Capital Accounts	
	11.8. Profit and Loss Appropriation Account	
	11.9. Interest on Capital	
	11.10. Interest on Drawings	
	11.11. Let Us Sum Up	
	11.12. Further Reading	
	11.13. Check your progress	
	11.14. Answers to Check Your Progress	
	11.15. Assignment	
12	**PARTNERSHIP-II**	221-236
	12.1. Learning Objectives	

Unit	Details	Page No
	12.2. Introduction	
	12.3. Meaning of Admission of a Partner in a Partnership Business	
	12.4. Matters Requiring Attention on the Reconstitution of Partnership	
	12.5. New Profit Sharing Ratio on Admission of a Partner	
	12.6. Meaning of Retirement of Partner	
	12.7. New Profit Sharing Ratio and Gaining Ratio on Retirement of a Partner	
	12.8. Differences between Sacrificing Ratio and Gaining Ratio	
	12.9. Accounting Treatment of Goodwill at the Time of Retirement of Partner	
	12.10. Revaluation of Assets and Liabilities	
	12.11. Let Us Sum Up	
	12.12. Further Reading	
	12.13. Check your progress	
	12.14. Answers to Check Your Progress	
	12.15. Assignment	
13	**Financial Statement Analysis**	237-281
	13.1. Learning Objectives	
	13.2. INTRODUCTION TO RATIO ANALYSIS	
	13.3. Liquidity Ratios: Analyzing Short-term Cash Needs	
	13.4. Profitability Ratios: Analyzing Operating Activities	
	13.5. Leverage Ratios: Analyzing Financial Structure	
	13.6. Market Ratios: Analysis of Financial Returns to Investors	
	13.7. Overall Analysis of Big Dog's Financial Statements	
	13.8. Horizontal and Vertical Trend Analysis	
	13.9. Let us sum up	
	13.10. Check your progress	
	13.11. Answer to Check Your Progress	

Unit	Details	Page No
	13.12. Further Reading	
	13.13. Assignment	
14	**The Statement Of Cash Flows**	282-313
	14.1. Learning Objectives	
	14.2. Financial Statement Reporting	
	14.3. Preparing the Statement of Cash Flows	
	14.4. Interpreting the Statement of Cash Flows	
	14.5. Appendix A: Putting It All Together :Corporate Financial Statements;	
	14.6. Let Us Sum Up	
	14.7. Check your progress	
	14.8. Answer to Check your progress	
	14.9. Further Reading	
	14.10. Assignments	

Unit 1: INTRODUCTION TO ACCOUNTING

1

Unit Structure

1.12 Learning Objectives

1.13 Introduction

1.14 Meaning of Book-Keeping

1.15 Meaning and Objectives of Accounting

1.16 Functions of Accounting

1.17 Accounting as a Source of Information

1.18 Characteristics of Accounting Information

1.19 Basic Terms Used in Accounting

1.20 Let Us Sum Up

1.21 Further Reading

1.22 Check your progress

1.23 Answers to Check Your Progress

1.24 Assignment

1.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- explain the meaning of book-keeping
- describe the meaning and objectives of accounting
- explain the functions of accounting
- discuss the importance of accounting as a source of information
- explain the characteristics of accounting information
- discuss some terms used in accounting.

1.2 INTRODUCTION

In business, it is very important to keep the records of all the monetary events. It will help the owner of the business to ascertain the profit or loss of the business. Therefore, a systematic procedure is required to be followed in keeping the records of the monetary events.

In this unit we will discuss this aspect of recording. Our topics of discussion will be the meaning of book-keeping and accounting, objectives of accounting, functions of accounting etc. The business uses accounting as a source of information in taking business decisions. So, it must possess certain characteristics and all these will be discussed in this unit.

This unit will help you in gaining knowledge on the basics of accounting and its importance in a business. You will also come to know some basic terms used in accounting.

1.3 MEANING OF BOOK-KEEPING

A business is started with a motive to earn profit. But at the same time there is a risk that it may face loss. Therefore, it is very important to keep track of the various transactions of the business. The owner is keen to know the amount of profit or loss suffered; the assets that the business possesses or the liabilities that the business has to discharge etc. All these information can be obtained only through the

accounting records. It makes it essential to record the transactions of the business. The system of keeping records of monetary transactions in business is known as book- keeping. On the basis of these records, certain reports will be prepared which will provide information as required by the owner or other ***stakeholders***.

R. N. Carter defined book-keeping as, "Book-keeping is the science and art of correctly recording in books of account all those business transactions that result in the transfer of money or money's worth." Therefore, the various aspects associated with book-keeping can be stated as under–

- A process of recording business transactions on a day to day basis;
- The business transactions must be expressed in terms of money;
- These transactions are recorded in a set of books, known as books of account;
- It provides the basis for generating summarized reports of business affairs during a particular period of time.

1.4 MEANING AND OBJECTIVES OF ACCOUNTING

In this section we will discuss about accounting. In recording business transactions, accounting is a step next to book-keeping. We have already discussed book-keeping in the previous section.

Accounting has been defined by The American Institute of Certified Public Accountants as, "The art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are in part at least, of financial character and interpreting the results thereof."

Thus, accounting is a system of interpreting the results of the business transactions that has been recorded, classified and summarized. It communicates the financial condition of the business to the various interested groups like, owners, creditors, tax authorities etc.

Objectives of Accounting: As accounting deals with business transactions, the objectives of accounting may be stated as under–

- To keep the records of the transactions systematically;
- To evaluate the performance of the business periodically;
- To ascertain the financial position of the business;
- To help the management in taking business decisions;
- To provide information about the business as required by the different outside groups like, financiers, tax authorities, debenture holders etc.
- To control the use of resources and business activities etc.

1.5 FUNCTIONS OF ACCOUNTING

On the basis of the above discussion, the functions of accounting may be stated as under–

- **Record Keeping:** The primary function of accounting is to keep records of the business transactions and then classify and summarized these transactions. It starts with recording the transactions in the primary book, known as journal book, and then transactions are posted to the secondary book, known as ledger book. On the basis of the ledger book, another statement is prepared, known as Trial Balance. At the end of the accounting period, on the basis of the information of trial balance, final accounts are prepared.
- **Decision-Making:** Accounting aids decision- making function of the management. Accounting provides varied information like, profit earned or loss suffered; assets and liabilities of business; cash and bank balances etc. All these information are supplied by accounting to enable the management in making business decisions.
- **Meeting Legal Requirement:** The business organisations are required to furnish various financial reports to the government agencies. These reports can be generated only when business transactions are recorded systematically. Thus, accounting helps the business firms in meeting the legal requirements.
- **Communicating Information:** Another function of accounting is to communicate the financial results of the business to the various groups.

Theses groups may be the financial institutions, creditors, shareholders, prospective investors etc. On the basis of the financial information provided by accounting, these groups take their decisions like, providing financial assistance, ascertaining profitability, purchase and sale of shares etc.

1.7 ACCOUNTING AS A SOURCE OF INFORMATION

Till now we have discussed that accounting is a system to record business transactions and we came to know that it communicates the results of business activities through various reports to the various interested groups. Thus, accounting can be regarded as a source of information. This source can be used to meet the informational requirement of both internal and external users.

Internal users refer to the shareholders, management consisting of the Board of Directors and the employees of the business organization. The external users are investors, creditors, financial institutions, government and the general public. The types of information required by these groups are varied. The following table summarizes the informational need of the groups–

External Users	**Information required to take decision on the–**
Shareholders	purchase, sale and holding of shares
	future profitability and prospects of the business etc.
Management	cash position of the business
	purchase of raw-materials
	profit earned
	dividend to be declared and reserves to be made etc.
Employees	profitability and stability of the business for job security
Investors	amount of money to be invested or not to be invested in the business
Banks	Amount of loan to be provided and the ability to repay the loan along with interest
Creditors	ability of the business to return their money
Government	tax liability
General Public	company's policies to discharge social responsibility etc.

1.8 CHARACTERISTICS OF ACCOUNTING INFORMATION

You are aware that accounting records are considered as source of information to communicate business information. Accounting information must satisfy the informational need of different users. Hence, accounting information must possess certain characteristics to be able to satisfy the need of different user groups. The characteristics of accounting information may be discussed as under–

- **Relevance:** The accounting must provide relevant information to the users to enable them to make sound decisions. The information must be communicated timely so that users can make best use of it.
- **Reliable:** Accounting must assure the users that they can rely on the information in their decision- making. The information must be verifiable and free from errors and bias.
- **Comparability:** The accounting information must be prepared andpresented in such a manner that it helps in comparing the accounting results of the organization over different periods of time and with other business organisations engaged in similar business.
- **Consistency:** To represent the true and fair view of the financial position of the organization, the accounting methods must be followed consistently. But it does not mean that the organization cannot change the accounting method. The organization can adopt the new method if it is acceptable and preferable. The management must state the reasons for adopting the new method and the effectof such change.
- **Understandability:** Assuming that the users have a minimum level of knowledge of accounting, business and economic activities, the accounting information must be presented in such a way that users can understand the information.

1.9 BASIC TERMS USED IN ACCOUNTING

In this section we will discuss some terms which are commonly used in accounting. You will find these terms in various books of accounts. By going through these

terms, you will be able to understand their importance in accounting. Let us begin with 'capital'.

A) **Capital:** In general, capital means the amount of money that a businessman invests in the business. But it not only includes money but also other assets or properties, for example, furniture, machinery etc. These are used in the business to run the business. The money brought in by the businessman will not be withdrawn from the business unless the business is closed down. Likewise, the other assets, which are brought in the business as capital will not be sold in the short- run. Let us assume that you are going to start a business by investing Rs. 50,000 in cash. You have also brought furniture amounting to Rs. 10,000 and a car costing Rs. 40,000. Now, your capital will be Rs. 1,00,000 (Cash Rs. 50,000 + Furniture Rs. 10,000

+ Car Rs. 40,000 = Rs. 1,00,000.) and with these you will start your business. You will not withdraw this amount or sell the assets till you decide to close down the business. If in future, you decide to close down the business, first of all you have to meet the liabilities of outsiders, for example, bank loan, creditors for merchandise etc., which you may obtain during the course of the business. After meeting all such liabilities, the residual amount will be your capital. This can be explained with the help of the following equation–

Capital = Total Assets – Total Outside Liabilities

Capital can be classified as–

- **Fixed Capital:** Fixed capital represents investment in those assets which are required to continue the business. These are not sold during the usual course of business and will be used in the business for a longer period of time.
- **Working Capital:** It represents the investment made in those assets which are circulating in nature and their amount increases or decreases during the usual course of the business.

B) Assets: Assets means the resources owned by a business firm. These are used in usual course of the business to support functions of the business firm. The assets are purchased with the motive of using it in the operation of the business but not to sell it immediately. Where some assets are tangible like, cash, furniture, machinery etc., some other assets are intangible like, goodwill. Some assets represents legal rights like, copyrights, trade mark etc. while some may be claim against others like, bills receivable.

Assets can be classified as–

- **Fixed Assets:** It represents those assets which are used in the business for a long period of time covering more than one ***accounting period***. Fixed assets support the production process of the organization. These are not sold during their useful life. Due to continuous use in the business, their usability got reduced in terms of capacity and monetary value. This reduction in value is known as depreciation.
- **Current Assets:** Current assets are those assets which can easily be converted into cash within one accounting period or are consumed during the normal business operation. Examples of current assets are cash, inventory, debtors, prepaid insurance etc.

C) Liability: Liability means the debts or obligations of the business that it has to meet within a definite time frame. Examples are– bank loan, creditors, bills payable etc.

Liabilities can be classified as–

- **Fixed Liabilities:** These are the long-term liabilities and are not required to be repaid within one accounting period. Example: long-term bank loan, debenture etc.
- **Current Liabilities:** These are the short- term liabilities required to be repaid within one accounting period. Example: trade creditors, bills payable etc.

D) **Expense:** Expense means the cost incurred by an organization to earn revenue. It may be in the form of actual cash payments (e.g. salaries) or decrease in the value of an asset (e.g. depreciation).

Expenses can be classified as–

- **Revenue Expense:** When the benefit of an expense is consumed by a business organisation during an accounting period, it is called revenue or operating expense. For example, payment of salaries, interest, travelling expenses etc.
- **Capital Expense:** The expenses, whose benefits extend beyond one accounting period, are called capital expense. For example, purchase of a machine, furniture etc.

E) **Revenue:** Revenue means the amount received by a business firm from its regular business activities before deducting any expense during a particular period of time. As it is generated from the regular business activities, like sales, rent, interest etc., it is also known as operating revenue. A business organization records revenue when it is earned and it is immaterial whether cash is received or not.

F) **Profit:** Profit is the excess of total revenue over total expenses. It is reflected by–

a. Increase in the value of assets;

b. Increase in owners' equity;

c. Decrease in liabilities.

G) **Loss:** Loss may be defined in different ways-

a. the excess of expense over revenue;

b. decrease in the value of an asset;

c. cost that fails to earn revenue.

H) **Depreciation:** Depreciation means reduction in the value of an asset. The asset depreciates because of wear and tear, obsolescence etc. It is a non-cash expense charged against the profit of the company.

I) **Debtor:** A debtor is a person or an entity who owes money to someone. For example, if a customer has purchased goods from you without paying cash but undertakes to pay the money at a certain date in the future, that customer is a debtor for you. It means you have sold goods to the customer on credit. The customer is liable to pay money to you and you have a claim against him. On the agreed date, you will realize cash from him.

J) **Creditor:** A creditor is a person or an entity that has sold goods to a customer but has not received cash for the goods sold. The creditor has a claim against the customer and can realize the money on the agreed future date. The customer owes money to the creditor and is liable to pay the money. In the above example, where the customer has purchased goods from you without paying cash, the customer is a debtor and you are the creditor.

K) **Transaction:** Transaction means any business event that has influenced the monetary position of the business and the pattern of assets, liabilities and capital. This influence is reflected in the financial statements of the business firm as every transaction is recorded in journal, posted to ledger and then trial balance and final accounts are prepared. For example, purchase of fixed asset for cash, results in increase in the value of fixed assets and decrease in cash. Similarly, goods purchased on credit, results in increase in stock and liability.

L) **Entity:** Entity refers to a business organization or an economic unit. It uses the various economic and non- economic resources, to undertake economic activities. The entities undertake these activities with the economic motive of earning profit.

M) **Bad Debt:** Business organisation makes credit sales to some customers and the customers will make payment in the future. Some of these customers may not be able to return the money. As a result, the business organisation will not be able to collect the debts. These uncollectable debts are known as bad debts. In preparing financial statement, viz, profit and loss account and balance sheet, bad debt is considered as an expense.

N) **Reserve for Doubtful Debt:** It is a provision created by a business organisation to compensate the loss arising from bad debts.

O) Overdraft: It is an arrangement with the bank under which the current accountholder can withdraw more money than the balance in the account. It is a loan facility provided by the bank and the customer can withdraw more money up to a certain balance, known as overdraft limit. The bank charge interest on the daily overdraft balance.

P) Prepaid Expenses: These are future related expenses. The services from such expenses will be received in future. Initially prepaid expense is treated as asset and appears in the balance sheet. The services to be received from such expenses spread over the different accounting periods. The expired portion is treated as expense of the particular accounting period.

Q) Outstanding Expenses: The expenses which are incurred in a particular accounting period but not paid during that particular accounting period are known as outstanding expenses. For example, salaries, rents etc. of a particular month are paid in the next month. Assuming that the accounting period of an organisation starts from 1st April, 2014 and ends on 31st March, 2015. The salary to be paid to the employees of the organisation for the month of March, 2014 will be paid in the month of April, 2015, which is also the beginning of the next accounting period. The salaries of the previous accounting period have to be brought into account in that period. These expenses are known as outstanding expenses.

R) Bills Payable: These are the documents indicating the amount owed to other on account of purchase of goods or availing services on credit. For example, credit purchase of goods by a retailer, monthly electricity bill etc. These are short- term liability and recorded as current liability in the 'liability' side of balance sheet. The bills are required to be paid on maturity i.e. the date of payment mentioned on the bill.

S) Bills Receivable: These documents indicate the amount to be received from the parties on account of credit sale of goods. The bills receivable becomes due on the date of maturity i.e. the date of payment mentioned on the bill. These are short-term asset recorded as current asset in the 'assets' side of balance sheet.

1.9 LET US SUM UP

In this unit we have discussed the following aspects–

- Book-keeping is a system of recording business transactions which are expressed in terms of money.
- The transactions are recorded in a set of books.
- Accounting is a system of interpreting the results of the business transactions that has been recorded, classified and summarized.
- Accounting communicates the financial condition of the business to the various interested groups like, owners, creditors, tax authorities etc.
- The various objectives of accounting are–
    - To keep the records of the transactions systematically;
    - To evaluate the performance of the business periodically;
    - To ascertain the financial position of the business;
    - To help the management in taking business decisions;
    - To provide information about the business as required by the different outside groups like, financiers, tax authorities, debenture holders etc.
    - To control the use of resources and business activities etc.
- The functions of accounting are– record keeping, decision- making, meeting legal requirement etc.
- The accounting is used as a source of information to meet the needs of different groups of users like, creditors, financial institutions, shareholders, management etc.
- The characteristics of accounting information are– relevance, reliable, comparability etc.
- Some basic terms used in accounting are– fixed assets, liabilities, expenses, profit, outstanding expenses, bills payable etc.

1.10 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

1.11 CHECK YOUR PROGRESS

1. What is book-keeping?
2. What is accounting?
3. State any three objectives of accounting.
4. Discuss any three characteristics of accounting information.
5. Define the following terms–
   a) Assets:
   b) Expensive
   c) Liability

1.12 ANSWERS TO CHECK YOUR PROGRESS

Ans.to Q.No.1: Book-keeping is the system of recording business transactions. These transactions are recorded systematically on a day to day basis in a set of books of accounting.

Ans. to Q. No. 2: Accounting is a system of interpreting the results of the business transactions which has been recorded, classified and summarized. Accounting communicates the financial information of the business to various parties.

Ans. to Q. No. 3: a)To keep the records of the transactions systematically;

a) To evaluate the performance of the business periodically;
b) To ascertain the financial position of the business.

Ans. to Q. No. 4: Relevance: The accounting information must provide relevant information of the business organisationto the users. This will help the users make decisions.

Reliable: Accounting information must be reliable so that users can rely on the information in their decision-making. Therefore, the accounting information must be free from errors and bias.

Comparability: The accounting information must help the organization in comparing its results over different periods of time. It will also help in comparing the results with the competitors.

Ans. to Q. No. 5: a) Asset means the resources owned by a business firm which are used in usual course of the business. The assets are purchased with the motive of using it in the operation of the business and not to sell it immediately. Examples are cash, furniture, machinery etc.

b) Expense means the cost incurred by an organization to earn revenue. It may be in the form of actual cash payments or decrease in the value of an asset (e.g. depreciation). Expenses can be classified as revenue and capital expenses.

c) Liability means the debts or obligations of the business that it has to meet within a definite time frame. Examples are bank loan, creditors, bills payable etc. Liabilities can be classified as Fixed and Current liabilities.

1.13 ASSIGNMENT

1. What is book-keeping?
2. What are the functions of accounting?
3. What are the characteristics of accounting?

Unit 2: GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

2

Unit Structure

2.11 Learning Objectives

2.12 Introduction

2.13 Meaning of Accounting Principles, Concepts, Conventions and Postulates

2.14 Meaning and Features of Generally Accepted Accounting Principles (GAAP)

2.15 Structure of GAAP

2.16 Let Us Sum Up

2.17 Further Reading

2.18 Check your progress

2.19 Answers to Check Your Progress

2.20 Assignment

2.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- define the accounting principles, concepts, conventions and postulates
- discuss the different accounting principles, concepts and conventions
- explain the meaning and features of Generally Accepted Accounting Principles
- discuss the structure of Generally Accepted Accounting Principles.

2.2 INTRODUCTION

'Accounting' in business is considered as a system that provides information about the transactions that have taken place and the financial condition of the business. This system starts with recording of business transactions and ends with interpreting the results thereof. Accounting is defined by the Committee on Terminology of the American Institute of Accountants (later on known as American Institute of Certified Public Accountants, AICPA) as,

"Accounting is the art of recording, classifying and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of a financial character, and interpreting the results thereof." (Accounting Terminology Bulletin No. 1). Recording, classifying and summarizing are done on some basic premise which are called accounting principles. In this unit, we will discuss the meaning of accounting principles, concepts, conventions as well as the different accounting principles, like business entity concept, going concern concept etc. We will also deal with the Generally Accepted Accounting Principles, its structure and the use of these principles in recording and presenting accounting statements.

2.3 MEANING OF ACCOUNTING PRINCIPLES, CONCEPTS, CONVENTIONS AND POSTULATES

- **Accounting Principles:** Accounting principles are the principles applied in the preparation of the accounts. These are general decision rules, derived

from both the objectives and the theoretical concept of accounting. These principles are the bases which govern the development of accounting technique. Accounting technique means the specific rules derived from accounting principles which are applied while recording transactions.

- **Accounting Concepts:** Accounting Concepts are the accepted notion applied in the field of accounting. A concept finds its place in a belief about the desirability of a method or procedure. Such methods or procedures are the general norms applied by the business entities while recording the transactions and preparing the financial statements.
- **Accounting Convention:** Accounting Convention is an established usage or custom followed in recording and presenting financial data.
- **Postulates:** Postulates are derived from the economic and political environment and from the modes of thought and customs of all segments of business community.

2.4 MEANING AND FEATURES OF GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP)

GAAP are the buildings blocks of the accounting language. Whole accounting framework is built on GAAP. To understand and use accounting information, the users should know this conceptual framework beforehand. Generally Accepted Accounting Principles (GAAP) are guides to the accounting profession in the choice of accounting techniques and the preparation of financial statements. These principles have been developed gradually through practice. Experience, reason, custom, usage and practical necessity have contributed significantly in the evolution of GAAP.

GAAP incorporate the consensus at a particular time as to which economic resources and obligations should be recorded as assets and liabilities in financial accounting, which changes in assets and liabilities should be recorded, when these changes should be recorded, how the assets and liabilities and changes in them should be measured, what information should be disclosed and how it should be disclosed, and which financial statement should be prepared. GAAP thus help to bring about uniformity in the reporting of financial events of the entities across the industry.

As of now, we have discussed the meaning of Generally Accepted Accounting Principles. Now, we will discuss the basic features of these accounting principles–

a) Accounting principles are not rigid. A considerable amount of flexibility is expected in the application of these principles.
b) Such principles are man-made and are the result of evolutionary process in accounting.
c) Like the principles of natural sciences, accounting principles may not be universally true and cannot be verified by observation.
d) The acceptance of accounting principles may vary from time to time and from country to country.
e) Accounting principles are influenced by the social environment, political environment, economic environment etc. These are the main reasons behind variation in the application of accounting principles from country to country and even in the same country

2.5 STRUCTURE OF GAAP

The structure of GAAP refers to the forms of elements of GAAP. Traditionally, these are known by various names, viz., assumptions, principles, concepts, conventions, etc. Based on the recent development in the theory base of accounting, the traditional structure of GAAP has been modified as under:

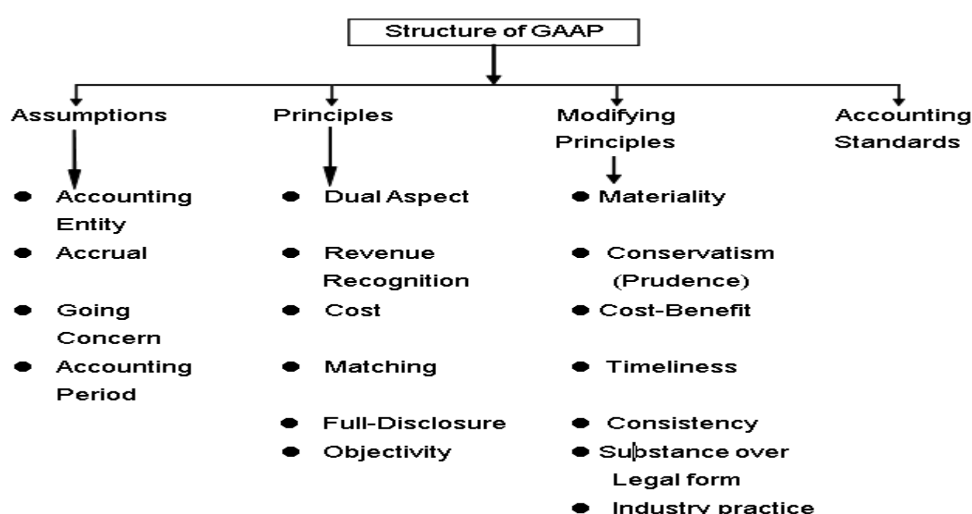


Fig. 2.1: Structure of GAAP

Modifying Principles: Due to difficulties faced in the application of certain accounting principles in certain situations these are modified in the application stage. These are referred to as modifying principles.

Accounting Standards: Accounting Standards are the established and accepted models which aim at providing excellent, adequate and unbiased treatment of accounting transaction/information and reporting the same in the financial statements to facilitate their users in forming rational and judicious decision.

Accounting assumptions and accounting principles are traditionally termed as accounting concepts and the modifying principles are considered as accounting conventions.

There has been an effort to distinguish between accounting concepts and accounting conventions. Although theoretically concepts and conventions are different terms, but when applied to accounting practice, no distinguishing features between these two are found. They are interdependent and the demarcation line between the two is very narrow.

It should be keep in mind that principles, concepts, conventions, postulates etc. are all included in Generally Accepted Accounting Principles (GAAP) that are followed in recording business transactions, preparing accounts and presenting them before the users of accounting information.

Now, we will discuss the various assumptions and principles of GAAP.

- **Business Entity or Accounting Entity:** This assumes that the business is separate from its owners or other businesses. Revenues and expenses should be kept separately from personal expenses of the owner.

The term ‘entity’ means ‘something that exists independently’. Hence ‘business entity’ means existence of a business unit independently. When a customer purchases goods, he purchases them from a business firm and not from an individual, family or household. This means a business firm has its separate entity.

The use of the word ‘Separate’ is used to separate the business unit from owner. A business firm is formed by the owner who invests money (Capital) to earn profit. His objective is to earn profit from the business. So, he must keep accounts of the

business separately, to enable himself to ascertain profit. He must not mix the transactions of household affairs to that of business affairs. To calculate the profit of the business, accounts of the business must be kept distinctly separate from the household or other personal transactions of the owner. Every transaction is analysed from the point of view of the business and not from the point of view of the persons who own them. This is called Separate Business Entity or Accounting Entity Concept.

- **Accrual Assumption:** In business, all transactions are not cash transactions. Accrual is the accounting process of recognising non- cash events and circumstances as they occur. Accrual assumption is used to facilitate measurement of cash and non-cash incomes and expenses of a period. Income and expenses are accounted in the period to which these are related. In accrual system of accounting, revenue is recognised as follows:

In case of sale:

I. When cash is received, or
II. When an obligation is received from the buyer for the payment within a certain future period, or
III. When the consideration is received in settlement in any form other than cash, which can be expressed in definite money value.

In case of purchase:

I. When cash is paid, or
II. When an obligation is given to the seller to pay the amount within a certain future period, or
III. When a consideration other than cash is given in settlement of the due.

Thus, in accrual system, income or expenses of a period are accounted in the period to which the income or expense is related applying the Matching Principle irrespective of the fact that whether cash is received or paid or the payment is deferred. The objective of accrual system is to determine the operating result (profit/Loss)in an accurate manner. As a result of this assumption, outstandingitems of expenses and incomes are taken into consideration while preparing financial statements. Expenditure incurred in the year 2007- 2008 is accounted in that year if

the full benefit of this expenditure is received in the year 2007-08. Salary of March 2008 paid in April 2008 is accounted in the year 2007-08 under accrual system. This is because the service of the employee was received and used in the month of March to the tune of the amount of salary.

- **Going Concern Assumption:** This assumption assumes that the business will be in operation indefinitely. This validates the methods of asset capitalization, depreciation, and amortization. This assumption is not applicable only when liquidation is certain.

  An existing and running business firm is called going-concern. This assumption is an important assumption on the basis of which transactions are recorded in the books of accounts. While recording business transactions in the books of accounts of an existing and running business firm, it is not assumed that the business will be closed down shortly. Rather it is assumed that the business will be carried on indefinitely. A business entity possesses assets and owes liabilities which are shown in the balance sheet. These assets and liabilities are carried to the next financial (or accounting) year. If it is assumed that the business will be closed down the next day or in the near future, than the assets would not have been shown at the cost price, but at saleable or realisable market value. But since the 'going concern' assumption is applied in recording transactions and preparing financial statements, so the accountant does not take into account the market price or realisable price.

  'Going concern' assumption simply states that in the foreseeable future the business will not be liquidated or closed down. This assumption is not applied for the firm which goes into liquidation or is put to sale. Accounts are carried forward to the following year on the presumption that the business will be carried out in the years to come. This is called *'Going Concern'* assumption. For this reason there is no justification to value the assets to be carried forward in realisable value or market value.

- **Money Measurement:** It is assumed that a stable currency is going to be the unit of record. The FASB accepts the nominal value of the US Dollar as the monetary unit of record unadjusted for inflation. In India, Rupee is accepted as the monetary unit of record without adjusting for inflation. Purchases,

sales, plant, furniture, capital, bank loan, salaries, expenses all are recorded in the books of account in money value. Recording of transactions does not mean recording of qualitative or quantitative feature of these elements. Monetary value of purchases and sales are recorded and not the quantities. Assets and liabilities are shown at their respective money values. This is known as 'money measurement' concept.

- **Accounting Period:** It implies that the economic activities of an enterprise can be divided into artificial time periods. Accounting period means the period for which the accounts are prepared. This refers to the period of time at the end of which books of accounts of business entity are to be closed and financial statements are to be prepared. The going concern assumption tells that a business firm has an indefinite life or very long life. If this is the case then the result of business operation can be known only after the end of the life of business, i.e., when the business is liquidated. But to take decisions on various aspect concerning the business operation and its financial matter, information on periodic basis is required. To facilitate supply of accounting information, the life span of the entity is divided into shorter and convenient period known as accounting period. This assumption has also received legal sanction from the Indian income tax laws under which the books of accounts are required to be closed by a business entity on 31st March, every year.
- **Dual-Aspect:** Dual Aspect is another important concept applied in recording and presenting accounting information. This concept is the very foundation of double-entry system of book-keeping. According to this concept, every business transaction has double effect, i.e., it has two sides – Debit and Credit.

  This relationship between the elements of financial statements: assets, capital, liabilities, income and expenses is called Accounting Equation which is a result of ''Dual 'Aspect' '' of all business transactions. Thus dual aspect of transaction means, if one side of the equation is affected by a transaction, the other side of the equation is also equally affected. For example, if a loan of Rs. 2,00,000 is taken, then liability and cash (asset) will increase by Rs. 2,00,000 each.

- **The Revenue Recognition Principle:** This principle requires business firms to record when revenue is– 1) realized or realizable and 2) earned, not when cash is received. This way of accounting is called accrual basis of accounting as described above. The revenue recognition principle helps in ascertaining the amount and time of recognising the revenues from the ordinary business activities. This principle is also known as **Revenue Realisation Principle**. In simple words, revenue recognition principle tells us the procedure of determining the income and expense for incorporation in profit and loss account (Revenue statement).
- **Matching Principle:** Expenses have to be matched with revenues as long as it is reasonable to do so. Expenses are recognized not when the work is performed, or when a product is produced, but when the work or the product actually makes its contribution to revenue. Only if no connection with revenue can be established, may cost be charged as expenses to the current period (e.g. office salaries and other administrative expenses). This principle allows greater evaluation of actual profitability and performance (shows how much was spent to earn revenue). Depreciation and Cost of Goods Sold are good examples of application of this principle.
- **The Cost Principle:** The Cost principle provides a relatively objective foundation for accounting. Cost principle in accounting states that all accounting entries shall be made at cost as and when the transaction takes place. Cost is the amount of money paid or payable for goods and assets acquired or services received.
- **The Objectivity Principle:** The Objectivity Principle states that accounting should be definite, verifiable, reliable and free from manipulation and personal bias of the persons engaged in the process of recording and presenting accounting data. For this reason, accounting must be carried out on an objective and factual basis. Every entry in the books of account must be based on documentary evidence i.e. source documents viz., vouchers and receipts. Historical cost recorded in the books is on the basis of original documents, which contain the information about the transaction. Where no voucher/ receipt is available as in the case of provision for doubtful debt, a

certificate from the competent authority of the business firm must be obtained.

- **The Principle of Full Disclosure:** Amount and kinds of information disclosed should be decided based on trade-off analysis as a larger amount of information costs more to prepare and use. Information disclosed should be enough to make a judgment while keeping costs reasonable. Information is presented in the main body of financial statements, in the notes or as supplementary information. Accounting information is required for decision making purpose by various users. Therefore, to be useful as the basis of decision- making process, there should be full disclosure in the financial statements of all significant information. Full Disclosure Principle specifies that there should be complete and understandable reporting relating to the economic affairs of the entity.
- **Cost-Benefit:** The benefit of providing the financial information should also be weighed against the cost of providing it. This modifying principle states that the cost of applying a particular principle should not exceed the benefits derived from it. This does not mean that effort should be taken to save cost by providing lesser information. It stresses that undue heavy expenses must not be incurred in supplying information which are not relevant. Cost benefit principle is generally applied to the supply of supplementary information, viz., human resource, value added statement, inflation adjusted account etc. Because of the application of this principle, companies are allowed to provide abridged financial statements to the shareholders instead of detailed statements.
- **Materiality:** The significance of an item should be considered when it is reported. An item is considered significant when it would affect the decision of a rational individual. The term materiality refers to the relative importance of an item. What is material for one firm may be immaterial for another firm. Again, material in one context may be immaterial in another context. Purchase of a calculator for office use may be accounted for as an asset by a small retail business and as an office expense by a large business. A difference of Rs. 1,000 in provision for doubtful debts is not material but the difference of Rs.1,000 in cash is a serious one.

Accounting Standard 1, states that financial statements should disclose all "material" items, i.e., the items, the knowledge of which might influence the decisions of the users of the financial statements. Thus materiality is an important guide for the accountants in deciding what should be disclosed in financial statements. It is essentially a matter of personal judgement and can be modified to the best interest of the firm and the users of financial statements.

- **Consistency:** The principle of 'consistency' requires that the accounting policies, which are followed from period to period, should not be changed. If it is assumed that the entity is a 'going concern', the accounting principles, methods, etc., must be consistently followed while recording and preparing financial statements. Users of accounting information draw their conclusions by comparing the financial statements of the current year with that of the previous year. If the accounting policies, techniques and methods applied are changed from year to year, the operating and financial results disclosed through financial statements, will suffer from lack of consistency.
- **Conservatism (Prudence):** When choosing between two solutions, the one that will be least likely to overstate assets and income should be picked up. The term conservatism implies that all probable or anticipated losses should be provided for and all anticipated or unrealized gains should be ignored and the profit should not be overstated. In other words, accountants should preferably report the highest values of liabilities and expenses, and the lowest values of assets and revenues.
- **Timeliness:** Information is useful for a decision maker if it is relevant and reliable. Information becomes useful, relevant and reliable if it is made available in time. The principle of timeliness states that information should be disclosed timely.
- **Substance over Legal Form:** According to this modifying principle, the transactions and events recorded in the books of accounts and presented in the financial statements should be governed by the 'substance of such transactions and not by the legality of such transactions'. In certain cases, the transactions recorded may not represent the true legal position.

Therefore, under 'substance over legal form' principle, substance of the transaction gets preference over legal position.

- **Industry Practice:** Accounting procedures should follow industry practices. Industries have to work under various situations. Some situation may be unique to only one industry. Therefore, sometimes practice prevailing in a particular industry is given precedence over generally accepted accounting principles.

2.6 LET US SUM UP

In this unit we have discussed the following–

- Accounting principles govern the development of accounting techniques.
- Accounting principles, concepts, conventions and postulates are applied in the preparation of accounts.
- Generally Accepted Accounting Principles (GAAP) provides guidelines in the choice of accounting techniques and the preparation of financial statements.
- These principles have been developed gradually through practice. Experience, reason, custom, usage and practical necessity have contributed significantly in the evolution of GAAP.
- GAAP consists of various assumptions, principles, modifying principles and accounting standards.
- GAAP plays an important role in the preparation of financial statements, like trading account, profit and loss account and balance sheet.
- GAAP helps in reducing alternative accounting procedures/ methods.
- GAAP helps in disclosing accounting information.

2.7 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.

4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

2.8 CHECK YOUR PROGRESS

1. Define accounting principles. (In three lines)
2. Explain the meaning of Generally Accepted Accounting Principles. (In three lines)
3. State whether following statements are True or False:
   i) According to going concern concept, the business will be in operation indefinitely.
   ii) According to business entity concept business is not separate from its owners or other businesses.
   iii) Accounting period is the period for which the accounts are prepared
   iv) Cost principle states that all accounting entries shall be made at cost as and when the transaction takes place

2.9 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Accounting principles are the principles applied in the preparation of the accounts. They help in the development of accounting technique. They are derived from the objectives and the theoretical concept of accounting.

Ans. to Q. No. 2: Generally Accepted Accounting Principles are the guide to the accounting profession in the choice of accounting techniques and the preparation of financial statements. GAAP brings uniformity in the reporting of financial events of the entities across the industry. The main elements of GAAP are as under:

a. Assumptions
b. Principles
c. Modifying Principles, and
d. Accounting Standards.

Ans. to Q. No. 3: i) True, ii) False, iii) True, iv) True

2.10 ASSIGNMENT

Q.1: State the accounting principle involved in each of the following situation:

a) Cash Sale Rs. 400 and credit sale Rs. 5,000

b) Inventory valued at cost.

c) Bad debt provided Rs. 600.

d) It is assumed that the business will last for unforeseeable future.

e) The assets are recorded in books at the acquisition cost.

f) Total insurance paid is Rs. 1200 out of which Rs. 500 is prepaid.

g) The cash withdrawn by the owner to meet personal expenses **Q.2:** Give a short explanation of the features of Accounting Principles. **Q.3:** Explain the term 'Accounting Concept'.

Q.4: What is meant by Generally Accepted Accounting Principles?

Explain its needs and importance.

Q.5: Write short notes on the following:

i) Business Entity Concept

ii) Going-Concern Concept

iii) Matching Concept

Unit 3: ACCOUNTING STANDARDS

3

Unit Structure

3.1 Learning Objectives

3.2 Introduction

3.3 Meaning and Needs of Accounting Standards

3.4 Objectives of Accounting Standards

3.5 Advantages of Accounting Standards

3.6 Authorities for Setting Accounting Standards in India

3.7 Let Us Sum Up

3.8 Further Reading

3.9 Check your progress

3.10 Answers to Check Your Progress

3.11 Assignment

3.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- define the meaning and importance of accounting standards
- explain the objectives and advantages of accounting standards
- describe the authorities for setting accounting standards.

3.2 INTRODUCTION

In the preceding unit (Unit-2), we have discussed the accounting principles applied in the framing of accounting information. These principles are generally applied in accounting. Some accountants may not follow these when most of the accounting professionals in general do not welcome variations in the application of accounting principles. This is because such a situation creates confusion in preparing the accounts. In the same way, the users of financial statements do not like variation in the application of accounting principles by the preparers of financial statements because it creates problem in their decision making process. Hence, there is always an effort from both sides to minimise these variations in the application of accounting principles. The accounting bodies and associations world over are continuously engaged in the effort to provide the best acceptable accounting principles. They have conducted research studies, made pronouncements from time to time on the basis of the findings of such research to evolve and improve the principles of accounting, known as 'Accounting Standards'. In the practical application these are generally accepted by all the accounting professionals and that is why these are included in 'Generally Accepted Accounting Principles'

3.3 MEANING AND NEEDS OF ACCOUNTING STANDARDS

Accounting Standards are the established and accepted models which aims at providing excellent, adequate and unbiased treatment of accounting transaction/information and reporting the same in the financial statements to facilitate their users in forming rational and judicious decision. According to T. P. Ghosh "Accounting standards are the policy document issued by the recognised expert accountancy body relating to various aspects of measurement, treatment and disclosure of accounting transactions and events." Accounting standards

provide the prescription for treating accounting events and disclosing the same in an all-accepted, unbiased and fair manner. These relate to accounting rules and procedures applied in measurement, valuation, reporting and disclosure of financial information.

The accounting standard is a standardised practice of accounting which aims to reduce the several alternative practices. 'Accounting standards relate to the codification of generally accepted accounting principles. These are stated to be the norms of accounting policies and practices by way of codes and guidelines to direct as to how the items which go to make the financial statements should be dealt with in accounts and presented in the annual reports'. (ICSI)

Accounting standards must be developed for the development of accounting as a business language. The central idea of accounting standards is to harmonise the diverse accounting policies and practices followed by business enterprises. Endeavour in this regard is needed at national as well as international level. Thought on standardization of accounting events and disclosure of the same in the financial statements was developed when the limitations of conventional GAAP were felt. Availability of alternative treatment of the event/transaction and reporting the same in any manner the accountant or the manager likes, have made the financial statements less useful to the decision makers since they cannot make inter-firm comparison. This has reduced the investors' confidence on the audited accounts and thus has damaged the dignity of accounting profession.

Needs of Accounting Standards: Accounting Standards are primarily required for harmonizing the accounting practices. In this connection the statement provided by David Solomon's (1983) is mentionable. He has identified the following reasons for setting accounting standards:

- The corporations cannot be granted absolute freedom of choice regarding what to report and how to report on market principles. For, this might cause damage to the interest of the investors and creditors.
- Comparability of financial information generated and disclosed by several enterprises will become easier through the adoption of a uniform accounting

standard. The value of information would be enhanced if this can be compared from entity to entity.

- The third argument says that an accounting standard appeals to the limited capacity of receivers of information to interpret and use it for their economic decision making purpose. The accounting standards recognise the principle of equity in information dissemination.
- Moreover, in view of the globalization and internationalization of business, it has become a necessity to adopt globally acceptable treatment of accounting issues and their reporting methods.

3.4 OBJECTIVES OF ACCOUNTING STANDARDS

Objectives of Accounting Standards are given below:

- The most important objective of Accounting Standards is to bring uniformity in financial reporting and to ensure consistency and comparability of data contained in the financial statements.
- Another objective of Accounting Standards is to use accounting standards as a tool to enhance corporate governance and responsibility.
- Accounting standards have been formulated to ensure fairness, probity, consistency and transparency in business operation and accounting practices.
- Another objective of Accounting Standards is to develop accounting as a language of business.

3.4 ADVANTAGES OF ACCOUNTING STANDARDS

Accounting Standards provide the accountants those accounting policies which are most suitable in a given situation. The utility of accounting standards may be stated as follows:

- Accounting Standards improve the reliability and credibility of financial statements.
- Accounting Standards ensure the consistency and comparability of Financial Statements.
- Accounting Standards help in resolving conflict of financial interests among various groups.

- Accounting Standards reduce the chances of manipulations and frauds.
- Accounting Standards are aid to Auditors. In case of companies, it is the duty of the auditors to ensure that the accounting standards have been followed in the preparation of financial statements. In case of deviations, it is also their duty to make adequate disclosure in their reports so that the users of such statements may be aware of such deviations. Such disclosure by the auditors helps them to avoid penal actions which may be taken against them under the company law.

3.6 AUTHORITIES FOR SETTING ACCOUNTING STANDARDS IN INDIA

In India there are three authorities that can set and issue Accounting Standards under their respective legislative powers. These authorities are:

- The Council of the Institute of Chartered Accountants of India,
- The Central Government under the Income Tax Act, 1961; and
- The Central Government under the Companies Act, 1956.

The Central Government, under Section 145(2) of the Income Tax Act, 1961, is authorised to notify, from time to time, the accounting standards to be followed by any class of assesses or any class of income.

The Central Government has constituted a 12-member NATIONAL ADVISORY COMMITTEE ON ACCOUNTING STANDARDS under Section

210A (1) of the Companies Act, 1956. Though no accounting standard has been laid down till now under this Act, but it is provided in section 210 of the Act, that the standard of accounting specified by the ICAI shall be deemed to be the Accounting Standards prescribed by the Central Government under this section.

Since the financial audit is performed by qualified chartered accountants in India, therefore, practically the task of setting, issuing and enforcing the implementation of accounting standards have been performed by the ICAI. Therefore the procedure followed by the ICAI in this regard is described hereunder.

The Institute of Chartered Accountants of India (ICAI) was established in the year 1949 under an Act of Parliament mainly to perform the following two basic activities: (a) Conducting Chartered Accountancy examination and preparing CAs to perform

accounting and auditing function; and (b) Formulating accounting standards as well as auditing standards and guidelines. The ICAI is a full-fledged member of the International Federation of Accountants (IFAC) and is an associate member of the International Accounting Standard Committee since April 1974. Recognizing the need to harmonize the diverse accounting practices prevalent in India and also to integrate them with the international accounting practices, the Accounting Standards Board (ASB) was constituted on 21st April 1977 by the ICAI. The Accounting Standards Board gives adequate representation to the related and interested groups of bodies, viz., Industry and Commerce, Company Law, Central Board of Direct Taxes, Comptroller and Auditor General of India, Banks, Public Enterprises and practicing auditors.

3.7 LET US SUM UP

In this unit we have discussed the following aspects–

- Accounting standards are the established rules which are used in the preparation of financial statements.
- Accounting standards brings uniformity in financial reporting
- Accounting standards makes the comparison of financial statements easy
- Accounting standards are the aids to the auditors.
- The Institute of Chartered Accountants of India (ICAI) was established to conduct Chartered Accountancy examination and preparing CAs to perform accounting and auditing function; and to formulating accounting as well as auditing standards and guidelines.

3.8 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.

4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

3.9 CHECK YOUR PROGRESS

a. Define the concept of accounting standard.
b. Mention any three needs of accounting standards.
c. Mention two objectives of Accounting Standards.
d. Mention two advantages of Accounting Standards.

3.10 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: ‘‘Accounting standards are the policy document issued by the recognised expert accountancy body relating to various aspects of measurement, treatment and disclosure of accounting transactions and events.’’

Ans. to Q. No. 2: i) Precise and prudent information

ii) Comparability

iii) Global acceptability of accounting information.

Ans. to Q. No. 3: i) To bring uniformity in financial reporting and to ensure consistency and comparability of data contained in the financial statements.

ii) To use accounting standards as a tool to enhance corporate governance and responsibility.

Ans. to Q. No. 4: i) Accounting Standards improve the reliability and credibility of financial statements.

ii) Accounting Standards help in resolving conflict of financial interests among various groups.

3.11 ASSIGNMENT

1. What is accounting standard?
2. What are the needs of accounting standard?
3. What are its benefits of accounting standard?

Unit 4: ACCOUNTING PROCESS-I

4

Unit Structure

4.1 Learning Objectives

4.2 Introduction

4.3 Meaning of Account

4.4 Meaning of Debit and Credit

4.5 System of Book-Keeping

4.6 Double-Entry System

4.7 Classification of Accounts

4.8 Rules for Debit and Credit

4.9 Let Us Sum Up

4.10 Further Reading

4.11 Check your progress

4.12 Answers to Check Your Progress

4.13 Assignment

4.1 LEARNIG OBJECTIVES

After going through this unit, you will be able to:

- explain the meaning of account
- explain the meaning of Debit and Credit
- define the Double Entry System Book-keeping
- apply the Double Entry System of Book-keeping in recording business transactions
- describe the advantages of Double Entry System of Book- keeping.

4.2 INTRODUCTION

In the first unit, we have discussed the meaning and objectives of accounting. Then we have discussed the functions of accounting. In this unit, we are going to discuss about account, the different classes of accounts, the double entry system and the rules of debit and credit.

4.3 MEANING OF ACCOUNT

An account is a summary record of transactions of similar nature for a certain period. Summary record of transactions relating to a particular person is account of that person for the period concerned; summary record of transactions relating to a particular asset is account of that asset for the period concerned and so on. A businessman should classify and summarise all the business transactions of similar nature under respective groups. Each such group or head is known as an 'Account' or 'Account heads'. For example, all dealings with 'Laxmi' will be recorded under the heading 'Account of Laxmi'. Account is abbreviated a 'A/C' or 'a/c'.

Definition of Account: The term 'Account' has been defined by different authorities. One of the most important definitions of account has been given by R. N. Carter.

According to R. N. Carter, 'An account is a ledger record, in summarised form, of all the transactions that have taken place with the particular person and the value specified'. It is a device to record transactions of one single type of item. It may be better explained with the help of its format.

Format of Account: An account is generally prepared in "T" shape having two sides, left hand and right hand side. A specimen form of an account is given below.

Salary Account ('T' Shape)

Dr. Cr.

Date	Particulars	J.F.	Amount Rs.	Date	Particulars	J.F.	Amount Rs.

All accounts are divided into two sides. The left hand side of the account is called 'debit side'. It is indicated by 'Dr.' (abbreviation for debit)
on the top corner of the left hand side. Right hand side of the account is called 'credit side'. It is indicated by 'Cr.' (abbreviation for credit) on the top corner of the right hand side of the account. The name of the account is written at the top in the centre. The word 'Account' or its abbreviation A/c is added to the name of the account. For example, Building A/c, Furniture A/ c, Salary A/c, etc. In case of account of a natural person the word Account (A/c) should not be used after the 'account head'. For example, the account of Laxmi is written as Laxmi and not as Laxmi A/c. It may be written as account of Laxmi. The term 'J. F' means 'Journal Folio', i.e., the concerned folio (page) number in the Journal.
There is another type of format used generally by the businessman to record transactions. This format is called 'horizontal format'.
This is shown below.

Salary Account (Horizontal Type)

Date	Particulars	J.F.	Dr. Amount Rs.	Cr. Amount Rs.	Balance Amount Rs. Dr Cr	Remark

4.4 MEANING OF DEBIT AND CREDIT

Debit and Credit are two important terms used in Book-keeping and Accountancy. These two terms form the very basis of recording transactions in the books of account.

Meaning of Debit: Left hand side of the account is called debit side. Hence, to debit an account means to record the transaction on the left hand side of the account. It is abbreviated as 'Dr.' The word 'debit originated from the Latin word 'Debitum' and it means what is due.

Meaning of Credit: Right hand side of the account is called Credit side. Hence, to credit an account means to record the transaction on the right hand side of the account. It is abbreviated as 'Cr.' The word 'Credit' originated from the Latin word 'Credre' which means trust or belief.

4.5 SYSTEM OF BOOK-KEEPING

System of book-keeping refers to the principles and procedure followed for recording of transactions in the books of account. From this point of view, system of book-keeping may be divided into the following:

a) **Double entry system:** The double entry system was first evolved by Fra luca Pacioli, who was a Franciscan Monk of Italy. This system recognises the fact that there are two fold aspects in every business transaction. In order to have a complete record of all the transactions, two-fold aspects of every transactions are recorded in the books of accounts. This system is recognised by the Tax Authorities.

b) **Single entry system:** The single entry system is another method of recording business transactions. Under this system, two-fold aspects of every transaction are not recorded. Only the records of accounts relating to cash, debtors and creditors are maintained. As two-fold aspects of every transaction are not recorded under this system, it fall short of principle of double entry.

4.6 DOUBLE-ENTRY SYSTEM

The Double-entry system of accounting is based on Dual Aspect concept. According to this concept, every financial transaction involves two fold aspects – (a) receiving of a benefit (b) giving of a benefit. For example, if a business has acquired an asset, it must have given up some other asset such as cash. Thus a giver necessarily implies a receiver and a receiver necessarily implies a giver.

Thus, double entry system states that each transaction has two fold aspects and the effects of these two fold aspects are opposite in nature. If one aspect, called account, receives a benefit; there must be another aspect or an account to impart that benefit. *The system of book-keeping under which both the aspects of every transaction is recorded in the books of account is known as 'Double-entry system of Book-Keeping'*. Under this system, every transaction is recorded in an accounting format having two sides namely left hand side and right hand side. For a transaction, the account which receives the benefit is called a debtor and it is recorded on the left hand side of the format which, in book-keeping, is known as debit side. At the same time, the other account of the transaction, which imparts the benefit is known as a creditor and is recorded on the right hand side of the accounting format which, in book-keeping, is known as credit side. That is why this system is known as Double entry system. Under this system of book keeping for each transaction the debit amount must be equal to the credit amount.

Double entry system was first propounded in 1940, in Genoa, in Italy, and was used by Stewards for rendering accounts in the state, but it was developed in proper form in Venice at the end of 15th century by Fra Luca Pacioli, a Franciscan monk of Italy. He is considered as the father of modern accountancy. His treatise in Italian, '*De computic at scriptures*' dealt with the use of Memorial(memorandum book) Journal, and Quadirno (ledger). This book became very popular in a short period of time due to its special characteristics. The book was translated into English by Huge old Castle in 1944. Later on, many changes were incorporated in the system and finally a complete book named as 'English system of book-keeping' was written on this system by Edward Jones in 1785.

Practical Application of the Principle of Double Entry: All business transactions involve the transfer of value in the form of money, goods or services from one party to another. So, it involves two parties. One party gives some benefit while another party receives the benefit of an equivalent value. For the purpose of recording, the transactions are analysed further to ascertain the two aspects affected by each transaction. Most important point to be kept in mind at this stage is that for the purpose of recording, a transaction is required to be analysed from the point of view of the party in whose books of accounts the record is to be made. This analysis is required in order to ascertain the accounts affected by the transaction. For example, Mr. A paid Rs. 500 to Mr. B. Most important point to be considered is– in which books of account the recording is to be made? If the recording is to be made in the books of 'A', from his point of view, we find that Cash has gone out and 'B' has received the same. Therefore, the two fold aspects are cash and 'B'. Since an account is maintained for each type of asset and the person to receive the benefit is 'B', the accounts affected are cash account and the account of B. Under double entry system, recording will be made both in cash account and in the account of B.

Thus, every transaction has two aspects, viz.

i) The receiving of value on the one hand and

ii) The giving of the same value on the other hand.

Both the receiving and giving aspects take place between the 'two account heads' of each party involved in the transactions.

Features of Double Entry System:

I. Transaction takes place only if there are two parties– one party receiving the benefit and the other party giving or imparting the benefit.
II. Each party is affected (by the transaction) in opposite direction but with the same amount.
III. Changes are recognised from the point of view of the party in whose books recording is being done.
IV. Changes are recorded in two related accounts in the books of the party in whose books recording is being done.

Advantages of Double Entry System: Double entry system has a good number of advantages. They are—

I. Scientific System: Double entry system is a scientific system of recording business transactions as compared to other systems.
II. Complete Record: Under this system, two aspects of every transaction are recorded in their concerned accounts. Thus, it makes a complete record of business transactions because records of both the aspects are made.
III. Check Arithmetical Accuracy: Since, two aspects of each transaction are recorded in two accounts in opposite direction with equal amount, there will be an equal amount of debit and credit. Thus, the total debits and total of credits at any point of time will be equal and this is proved by preparing a Trial Balance. If the Trial Balance agrees, it proves that the books of accounts are arithmetically correct.
IV. Ascertainment of the Result of Business Activities: Under this system, as the accounts of revenue and expenses are maintained, a trading and profit and loss account can be prepared and gross profit/gross loss and net profit/net loss can be ascertained.
V. Ascertainment of Financial Position: Under this system, as the accounts of assets, liabilities and capital are also maintained, a balance sheet can be prepared in order to ascertain the financial position of the business on a given date.

Disadvantages of Double Entry System: In fact, there are no disadvantages of double entry system of book-keeping. However, considering the size of the organisation using the system, the following may be regarded as disadvantages of double entry system.

I) Requirement of Expert Knowledge: The maintenance of books of accounts under this system requires the book-keeper to have expert knowledge. Hence, it cannot be maintained by a layman. Now a day, accounting is a profession and is being practised by qualified accountants.

II) Lengthy and Cumbersome Process: The process of recording, classifying, analysis and interpreting the accounts is cumbersome and tedious.

III) Expensive: The system requires an organisation to maintain a large number of books of accounts. Accounts department is also required to be staffed by qualified and trained persons requiring the payment of high salaries. So, it is an expensive system.

IV) Unsuitable for Small Organisation: As it is expensive and requires the services of qualified persons, it may not be suitable and economical for small organisations to maintain books of account under this system.

4.7 CLASSIFICATION OF ACCOUNTS

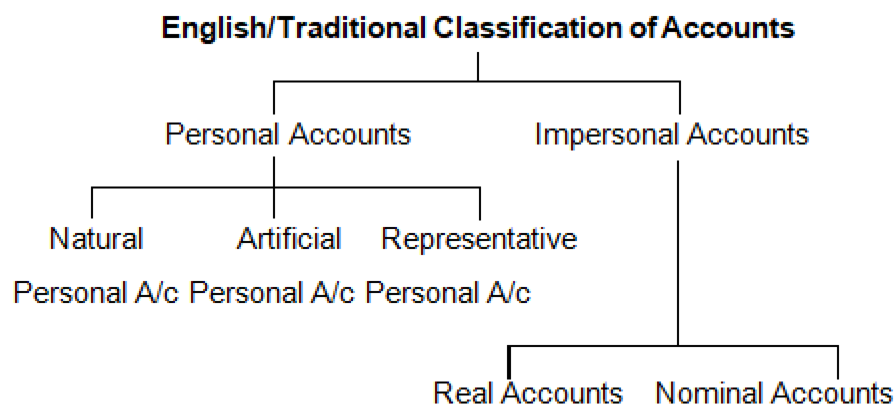
For the purpose of recording transactions, classification of accounts (i.e., account heads) are necessary. There are two approaches for classification of accounts. These are:

a. English Approach or Traditional Approach and

b. American Approach or Modern Approach These are discussed below:

c. English Approach or Traditional Approach:

A) English Approach or Traditional Approach:



The above classification is explained below:

1) **Personal Accounts:** Account heads relating to persons, firms, companies, etc. are classified into the following categories.

   I. Accounts of Natural Persons: Account heads that records the transactions of individual human beings fall into the category of natural

persons, for example, accounts of Hem, Vikash, Suresh, Jayanata, Raju etc.

II. Accounts of Artificial Persons: Accounts recording the transactions concerning a firm, company, institution, association, organisation etc. fall into this category. For example, Guwahati College A/c, Oil India Ltd. A/c, State Bank of India A/c, N.F Railway A/c, Guwahati Club A/c, etc.

III. Representative Personal Accounts: Representative personal accounts are the accounts which represent a certain person or a group of persons although the name of the concerned person or persons are not mentioned in the account head. Such type of account head occurs in cases of outstanding expenses, prepaid expenses, income receivable and income received in advance. For example, outstanding Salary, Salary Prepaid, Unexpired Insurance or Insurance paid in advance, Commission Received in Advance etc.

Note: when any 'Prefix or Suffix' is used before/after any nominal account head, such account is classified as Representative Personal Account under Traditional approach.

2) **Real Accounts:** The 'account heads' recording transactions relating to tangible things (which can be seen, touched or physically exchanged) such as goods, cash, land, building, machinery, etc. are classified as real accounts.

It may be mentioned here that there are some items which do not have a physical shape and which cannot be seen or touched but it can be bought and sold. For example, goodwill, patents, trademarks, copyrights, etc. also fall within the category of real accounts.

3) **Nominal Accounts:** The accounts recording transactions relating to losses, expenses, incomes and gains are classified as nominal accounts. For example, Salaries, Wages, Rent paid, Discount Allowed, Discount Received, Commission Received, Interest Paid, Interest Received etc.

B) **American Approach or Modern Approach**: According to the American approach or Modern approach, accounts are classified into five categories as under.

1) **Assets Account:** The meaning of asset is property. Assets account are the accounts of properties such as land, building, plant, machinery, stock, patents, cash in hand, cash at bank, investments, inventory, etc. held by an entity. This category also includes the accounts of debtors.
2) **Liabilities Account:** Liability means obligation to pay. Liabilities accounts are the accounts pertaining to the obligation of the entity to lenders, creditors for goods, creditors for assets, creditors for expenses, etc.
3) **Capital Account:** Capital is the amount with which the business is started. It is the account of the owner who invests money in the business as capital.
4) **Revenue Accounts:** Revenue accounts are the accounts of incomes and gains. For example, sales, discount received, interest received, commission received etc.
5) **Expense Accounts:** Expense accounts are the accounts of expenses incurred and losses suffered by an entity. For examples, purchases, wages paid, depreciation, rent paid, rates and taxes, etc. However, in case of sole proprietorship or partnership form of business, another account called 'Drawings Account' is also maintained in order to record the transactions relating to withdrawals of cash or goods made by the proprietor or partners for their personal use.

4.8 RULES FOR DEBIT AND CREDIT

a. Under English Approach or Traditional Approach *the rules for debit and credit* are as under:
   I. **In Case of Personal Accounts:** *Debit* the Receiver of the benefit Credit the Giver of the benefit
   II. **In Case of Real Account:** *Debit* What comes in. *Credit* What goes out.
   III. In the Case of Nominal Accounts:

   Debit Expenses and Losses. *Credit* Gains and Incomes.

b. Under American or Modern Approach *the rules for Debit and Credit* are as under:
   I. Assets Account:
      1. When there is an increase in the value of Asset, it is 'Debited'

2. When there is a decrease in the value of Asset, it is 'Credited'

II. Liabilities Account:

1. When there is an increase in the amount of Liability, it is 'Credited'
2. When there is a decrease in the amount of Liability, it is 'Debited'

a) Capital Account:

1. When there is an increase in the amount of Capital, it is 'Credited'
2. When there is a decrease in the amount of Capital, it is 'Debited'

b) Revenue Account:

1. When there is an increase in Revenue, it is 'Credited'
2. When there is a decrease in Revenue, it is 'Debited'

c) Expense Account:

1. When there is an increase in the Expense, it is 'Debited'
2. When there is a decrease in Expense, it is 'Credited'

d) Withdrawal/Drawings Account:

1. When any withdrawal or drawings is made by the proprietor/ partner, it is 'Debited'
2. When any interest is charged on withdrawal or drawings made by the proprietor/ partner, it is 'Debited'
3. When the balance of the drawings is closed by transfer to Capital account, drawings account is 'Credited'.

The rules for 'Debit' and 'Credit' as applicable under Modern approach is summarised below.

Sl. No.	Type of Account	To be debited When	To be Credited When
a)	Assets Account	Increase	Decrease
b)	Liabilities Account	Decrease	Increase
c)	Capital Account	Decrease	Increase

Sl. No.	Type of Account	To be debited When	To be Credited When
d)	Revenue Account	Decrease	Increase
e)	Expense Account	Increase	Decrease
f)	Drawings Account	Increase	Decrease

Illustration: Give five examples of each of Assets Account, Liabilities Account, Revenue Account and Expense Account

a) **Asset Account**

i) Building Account

ii) Investment Account

iii) Furniture Account

i) Machinery Account

ii) Cash Account

b) **Liability Account:**

i) Creditors Account

ii) Loan from Madhu Account

iii) Capital Account

iv) Bank (Loan) Account

v) Rent payable Account

c) **Revenue Account:**

i) Sales Account

ii) Returns inward Account (Sales decreases)

iii) Discount Received Account

iv) Interest received – Revenue Account

v) Rent of premises sub-let – Revenue Account

d) Expense Account:

i) Purchase Account

ii) Carriage inward Account

iii) Carriage outwards Account

iv) Discount Allowed Account

v) Interest paid Account

Let us have some more Practice:

Identify the following accounts:

(i) Cash in hand (ii) Furniture (iii) Investment (iv) Building

(v) Machinery (vi) Trademark (vii) Land (viii) Cash at Bank (ix) Leasehold property (x) Goodwill (xi) Closing Stock (closing inventory) (xii) Debtors(xiii) Creditors (xiv) Loan to Ram (xv) Loan from Madhu (xvi) Capital Bank (Loan) (xviii) Assam Co. Ltd. a supplier (xix) Brun Kumar (a customer to whom, goods were sold on credit) (xx) Withdrawal by the proprietor for personal use (xxi) Copyright.

Solution:

i) Cash in hand– Assets Account

ii) Furniture– Asset Account

iii) Investment– Assets Account

iv) Building– Asset Account

v) Machinery– Asset Account

vi) Trademark– Asset Account

vii) Land– Asset Account

viii) Cash in Bank– Asset Account

ix) Leasehold property– Asset Account

x) Goodwill– Asset Account

xi) Closing Stock (closing inventory)– Asset Account

xii) Debtors– Asset Account

xiii) Creditors– Liability Account

xiv) Loan to Ram– Asset Account

xv) Loan from Madhu– Liability Account

xvi) Capital A/c– Liability Account

xvii) Bank (Loan)– Liability Account

xviii) Assam Co. Ltd., a supplier– Liability Account

xix) Brun Kumar (a customer to whom goods sold on credit)– Assets Accounts

xx) Withdrawal by the proprietor for personal use– Drawing Account

xxi) Copyright– Assets Account.

Illustration: Classify the following accounts:

Sales (ii) Purchase (iii) Returns outward (iv) Returns inward (v) Carriage inward (vi) Carriage outward (vii) Discount Allowed (viii) Interest received (ix) Discount Received (x) Interest paid (xi) Rent paid (xii) Rent Payable (xiii) Rent paid in advance (xiv) Rent of premises sub-let (xv) Bad Debt (xvi) Import duty (xvii) Salary paid (xviii) Outstanding Salary (xix) Salary paid in advance (xx) Insurance premium (xxi) Prepaid Insurance (xxii) Depreciation (xxiii) Commission paid (xxiv) Commission Received (xxv)Commission Received in Advance (xxvi) Royalty Paid (xxvii) Dividend Received

Solution:

i) Sales– Revenue Account

ii) Purchase– Expense Account

iii) Returns Outward– Expense Account (purchase decreases)

iv) Returns inward– Revenue Account (Sales decreases)

v) Carriage inward– Expense Account

vi) Carriage outwards– Expense Account

vii) Discount Allowed– Expense Account

viii) Interest received– Revenue Account

ix) Discount Received– Revenue Account

x) Interest paid– Expense Account

xi) Rent Paid– Expense Account

xii) Rent payable– Liability Account

xiii) Rent paid in advance– Assets Account

xiv) Rent of premises sub-let– Revenue Account

xv) Bad debt– Expense Account

xvi) Import duty– Expense Account

xvii) Salary paid– Expense Account

xviii) Outstanding salary– Liability Account

xix) Salary paid in advance– Assets Account

xx) Insurance premium– Expense Account

xxi) Prepaid insurance– Assets Account

xxii) Depreciation– Expense Account

xxiii) Commission paid– Expense Account

xxiv) Commission received– Revenue Account

xxv) Commission received in advance– Liability Account

xxvi) Royalty paid– Expense Account

xxvii) Dividend received– Revenue Account

Illustration: State on which side of the account, the following will be recorded. State also the nature of the accounts.

1) When there is an increase in the account because of a transaction:

(a) Rent Received (b) Salaried Paid (c) Motor Vehicle Account

(d) Proprietor's Account (e) Ramesh Account (Debtor) (f) Jayanta Account (creditor) and (g) Salary Outstanding Account

2) When there is a decrease in the account because of a transaction:

(a) Insurance Premium Paid (b) Proprietor's Account (c) Commission Received (d) Furniture Account (e) Rent Outstanding Account (f) Ratan Account (creditor) and (g) Dinesh Account (Debtor)

Solution: Table showing the account to be Debited/ Credited–

Account Head	Class of Account	Debit/Credit
I) Increase the Balance of Account		
a) Rent Received	Revenue	Credit
b) Salary paid	Expense	Debit
c) Motor Vehicle A/c	Assets	Debit
d) Proprietor A/c	Capital	Credit
e) Jayanta (creditor)	Liability	Credit
f) Ramesh (Debtor)	Assets	Debit
g) Salary outstanding A/c	Liability	Credit
II) Decrease the Balance of Account		
a) Insurance Premium Paid	Expense	Credit
b) Proprietor Account	Drawings	Debit
c) Commission Received A/c	Revenue	Debit
d) Furniture A/c	Assets	Credit
e) Rent Outstanding A/c	Liability	Debit
f) Ratan (creditor)	Liability	Debit
g) Dinesh (debtor)	Assets	Credit

Illustration: Ascertain the account to be Debited/Credited with reasons:

i) Started business with capital of Rs. 30,000

ii) Purchased machinery on credit from Hari Bora for Rs. 35,000

iii) Purchased goods for cash Rs. 12,000

iv) Sold goods to Ratan Rs. 15,000

v) Paid rent for the month of January '08 Rs. 500

vi) Received commission Rs. 2,000

Solution:

Statement showing the Account heads to be Debited/Credited

Sl. No.	Transaction	Aspects/ Accounts involved	Debit/ Credit	Reasons
i)	Started business with capital of Rs. 30,000	Cash Capital	Debit Credit	Assets increases Capital Increases (liability)
ii)	Purchased machinery on credit from Hari Bora for Rs. 35,000/-	Machinery Hari Bora	Debit Credit	Assets increases Libility Increases
iii)	Purchased goods for cash Rs. 12,000/-	Purchases Cash	Debit Credit	Expenses increases Assets Decreases
iv)	Sold goods to Ratan Rs. 15,000/-	Ratan Sales	Debit Credit	Assets increases Revenue Increases
v)	Paid rent for the month of July, 04 Rs. 500/-	Rent Cash	Debit Credit	Expenses increases Assets Decreases
vi)	Received commission Rs. 2,000/-	Cash Commission Received	Debit Credit	Assets increases Revenue Increases

4.9 LET US SUM UP

In this unit we have discussed the following points–

- Account is a summarised record of transactions relating to person, property, expense or gain.
- The terms 'Debit' and 'Credit' and their rules.
- Two approaches regarding classification of accounts.
- According to English approach the accounts are classified into three types– Personal, Real, Nominal.
- According to American approach the accounts are classified into five types– Assets, Liabilities, Capital, Revenue and Expense.
- Two system of Book-keeping: Single Entry and Double Entry systems.

Application of Double Entry principles in recording business

4.10 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

4.11 CHECK YOUR PROGRESS

Q.1: Explain the meaning of 'Account'.

Q.2: Explain the meaning of Debit and Credit.

Q.3: Explain the meaning of Double-entry system of Book-Keeping.

4.12 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: An account is a summary record of transactions of items of similar nature for a certain period.

Ans. to Q. No. 2: To debit an account means to record the transaction on the left hand side of the account. To credit an account means recording the transaction on the right hand side of the account.

Ans. to Q. No. 3: The system of book-keeping under which both the aspects of every transaction is recorded in the books of account is known as 'Double-entry system of Book-Keeping'.

4.13 ASSIGNMENT

Q.1: Explain the meaning of Double Entry System and describe its advantages.

Q.2: What do you mean by an account? What are the different types of account?

Q.3: What are the rules regarding debit and credit?

Q.4: Classify the following items: Cash– Rs. 5,000

Machinery– Rs. 50,000

Loan Taken from Bank– Rs. 1, 00,000 Creditors– Rs. 10,000

Purchase of goods– Rs. 15,000 Sale of goods– Rs. 1, 00,000 Salaries paid– Rs. 10,000 X Co.– Rs. 10,000

Unit 5: ACCOUNTING PROCESS-II

5

Unit Structure

5.1 Learning Objectives

5.2 Introduction

5.3 Meaning of Books of Account

5.4 Meaning of Journal

5.5 Journalising

5.6 Subsidiary Books of Accounts

5.7 Meaning of Ledger

5.8 Meaning of Ledger Posting

5.9 Rules Regarding Posting

5.10 Balancing of an Account

5.11 Let Us Sum Up

5.12 Further Reading

5.13 Check your progress

5.14 Answers to Check Your Progress

5.15 Assignment

5.1 LEARNIG OBJECTIVES

After going through this unit, you will be able to:

- explain the meaning of Books of Account
- explain the meaning of 'Journal'
- discuss the process of recording transactions in journal book
- discuss the various subsidiary books.
- explain the meaning and importance of ledger
- differentiate between journal and ledger
- explain the meaning of ledger posting
- discuss the rules of ledger posting
- prepare ledger accounts.

5.2 INTRODUCTION

In the earlier unit, we have discussed about account and the rules of debit and credit. We have discussed the double entry system of book- keeping. In this unit, we are going to discuss the steps of recording business transactions in journal. In journal book, transactions are recorded first by following the rules of double entry system. In the process of accounting, after entering the transactions in journal, the next step is to transfer these entries to another book of account. This book is known as ledger book. In this unit we will discuss about this book.

This unit will help you in gaining an understanding of journal book and the process of recording the transactions in journal besides the different subsidiary books that are important for a business organisation. Our discussion will also cover meaning of ledger, its importance in record keeping, the process of transferring the journal entries to ledger book etc. You will also come to know the steps of entering the transactions in ledger book and how the ledger accounts are balanced.

5.3 MEANING OF BOOKS OF ACCOUNTS

The book, which contains accounts, is known as the Books of Accounts. In other words, it means the khata or books in which the businessman keeps the records of business transactions. Recording of transactions in books of account is a process of entering the transactions in the proper books of accounts in a systematic manner. It means putting into black and white the transaction that takes place in course of business activities.

Normally transactions are recorded in two sets of books step by step. Transactions are first recorded in **Journal,** which is also known as **'book of original entry'** or '**Primary Book'**. In the next step, transactions are recorded in Ledger, which is also known as **'book of final entry'** or '**Secondary Book'**. These Books of accounts are specially printed and ruled books where the accounts of a firm can be written up.

5.4 MEANING OF JOURNAL

The word 'Journal' has been derived from the French word 'JOUR' means daily records. Journal is a book of original entry in which transactions are recorded as and when they occur in chronological order (in order of date) from the source documents. Recording in journal is made showing the accounts to be debited and credited in a systematic manner. Thus, the journal provides a date-wise record of all the transactions with details of the accounts and amounts debited and credited for each transaction with a short explanation, which is known as narration.

Firms having limited number of transactions record those in journal and from there, post these to the concerned ledger accounts. Firms having large number of transactions, maintain some special purpose journals such as, Purchase Book, Sales Books, Returns books, Bills Book, Cash Book, Journal proper etc.

Format of Journal: The following is the format of Journal.

Date	**Particulars**	**L.F.**	**Amount**	
			Debit Rs.	**Credit Rs.**
(i)	(ii)	(iii)	(iv)	(v)

The format of Journal is sub-divided into five columns. These five columns are (i) Date (ii) Particulars (iii) Ledger Folio (L/F) (iv) Debit amount and (v) Credit amount.

Ledger Folio (L.F): Journal is the original record of the business transactions. All entries from the journal are posted in the ledger accounts. **The page number or folio number of the ledger** account where the posting has been made from the journal is recorded in the L.F column of the Journal. Each entry in the journal must be explained in brief. This brief explanation of the entry is called **Narration.** Thus, Narration gives a brief explanation of the transaction for which the entry has been passed is given. It enables the persons going through the journal entry to have an idea about the transaction.

5.5 JOURNALISING

Journalising is the process of recording the aspects of the transactions in Journal. In other words, recording of entries in the 'journal' is known as journalising.

Process of Journalising: The process of journalising means the steps to be followed for ascertaining the account heads to be debited/ credited for a particular transaction. There are three steps involved in the process of journalising a transaction.

Step 1: Identification of accounts or 'account heads' affected by the transaction.

Step 2: Classification of accounts or account heads.

Step 3: Application of Rules for Debit and Credit

Types of Journal Entries: Entries recorded in the journal may be of two types.

a) Simple Journal Entry and

b) Compound Journal Entry

Simple Journal Entry: When a transaction affects only one aspect/ account in the debit and one aspect/account in the credit, it is known as simple journal entry.

Compound Journal Entry: When a transaction affects more than two accounts at a time– one or more accounts being debited/ one or more accounts being credited, such entry is known as compound journal entry.

Let us journalise the transactions relating to receipts and payments in cash or by cheque, transactions relating to goods, then transactions relating to purchase and sale of assets, incomes and expenses and finally transactions between the business and the proprietor.

Transactions relating to receipts and payments in cash or by cheque: A business organization settles its accounts with the parties by receiving or making payments either in cash or by cheques. The recording of such transactions may be illustrated as under:

Example 1:

2008

July 1: Cash received from Ramesh Rs. 5,000.

July 2: Received from Sita Rs. 1,000 in cash and Rs. 10,000 by cheque.

Solution:

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
2008 July 1	Cash A/c Dr. To Ramesh (Being cash received)		5,000	5,000
July 2	Cash A/c Dr. Bank Dr. To Sita (Being the amount received in cash and by cheque)		1,000 10,000	11,000

Transactions Relating to Goods: The transactions relating to goods are: purchase and sale of goods for cash or on credit and the return of goods.

Example 2:

2008 Aug. 1: Purchased goods for Rs. 4,000 Aug. 2: Purchased goods for Rs. 3,000

Aug. 3: Purchased goods on credit from Rani for Rs. 2,000 Aug. 4: Goods sold for Rs. 5,000

Aug. 5: Goods sold for Rs. 10,000

Aug. 6: Goods sold to Jadu for Rs. 1,000 on credit Aug. 7: Goods returned to Rani Rs. 1,000

Aug. 8: Goods returned by Jadu Rs. 500

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
2008				
Aug. 1:	Purchase A/c Dr.		4,000	
	To Cash A/c			4,000
	(Being goods purchased)			
Aug. 2:	Purchase A/c Dr.		3,000	
	To Cash A/c			
	(Being goods purchased)			3,000
Aug. 3:	Purchase A/c Dr.		2,000	
	To Rani			
	(Being goods purchased on credit)			2,000
Aug. 4:	Cash A/c Dr.		5,000	
	To Sales A/c			5,000
	(Being goods sold)			
Aug. 5:	Cash A/c Dr.		10,000	
	To Sales A/c			10,000
	(Being goods sold)			
Aug. 6:	Jadu Dr.		1,000	
	To Sales A/c			1,000
	(Being goods sold on credit)			
Aug. 7:	Rani Dr.		1,000	
	To Returnd Outward A/c			1,000
	(Being goods returned to Rani)			
Aug. 8:	Returns Inward A/c Dr.		500	
	To Jadu			500
	(Being goods returned by Jadu)			

The transactions have been recorded by following the steps of journalizing. Transactions of August 1 and 2 are cash transactions. In case of transaction of Aug. 3, the name of the party is recorded because it is a credit transaction. The transaction of August 4 is a cash sale transaction. The transaction of Aug. 6 is a credit sale transaction and therefore, the name of the party has been recorded. In case of transaction of Aug. 7 “Returns Outward A/c” records the goods returned to the party from whom they were purchased on credit. In case of transaction of Aug. 8 “Return Inward A/c” records the goods returned by the party to whom they were sold on credit.

Transactions relating to purchase and sale of assets of the business: These transactions can be discussed with the help of the following example:

Example 3:

2008

Aug. 9: Purchased a plot of land for Rs. 1,00,000

Aug. 10: Purchased furniture on credit from MM Company for Rs.

50,000

Aug. 11: Old computer sold for Rs. 5,000

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
2008 Aug. 9:	Land A/C Dr. To Cash A/C (Being a plot of land purchased)		1,00,000	1,00,000
Aug.10:	Furniture A/c Dr. To MM Co. (Being furniture purchasedon credit)		50,000	50,000
Aug. 11:	Cash A/c Dr. To Computer A/c(Being old computer sold)		5,000	5,000

In recording the transactions of Aug. 9 and Aug. 10 the assets have been debited by applying the rule of real account i.e. Debit– what comes in. The asset has been credited in recording the transaction of Aug. 11 as the asset is sold out i.e. Credit– what goes out.

Transactions relating to expenses and incomes: The expenses of business may relate to payment of salaries, rent, advertisement expenses, printing and stationery expenses etc. Business may earn income by way of commission, interest on investment etc. The following example will help you in recording such transactions:

Example 4:

2008

Aug. 12: Rent paid Rs. 5,000

Aug. 13: Advertisement expenses paid Rs. 4,000 Aug. 14: Interest on investment received Rs. 1,000. Aug. 15: Commission received Rs. 500

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
2008 Aug. 12:	Rent A/c Dr. To Cash A/c(Being rent paid)		5,000	5,000
Aug.13:	Advertisement A/c Dr. To Cash A/c (Being advertisementexpenses paid)		4,000	4,000
Aug.14:	Cash A/c Dr. To Interest Receivable A/c(Being interest on investment received)		1,000	1,000
Aug.15:	Cash A/c Dr. To CommissionReceivable A/c (Being commission received)		500	500

In the above transactions, the expenses have been debited and incomes have been credited by applying the rule of nominal account.

Transactions between the proprietor and the business: The transactions that take place between the proprietor and the business are recorded in the books of accounts of the business. These transactions may relate to introducing capital in the business, withdrawing of cash from business for personal use of the proprietor etc. Withdrawing of cash or goods for personal use of the proprietor is known as drawings.

Example 5:

2008

Aug. 16: Mr. Ram started business with Cash Rs. 10,000; Furniture Rs. 15,000; Machinery Rs. 50,000.

Aug. 17: Mr. Ram withdraws Rs. 2,000 for personal use.

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
2008 Aug. 16:	Cash A/c Dr. Furniture A/c Dr. Machinery A/c Dr. To Capital (Being business started with cash, furniture andmachinery)		10,000 15,000 50,000	75,000
Aug.17:	Drawings A/c Dr. To Cash A/c (Being cash withdrawnfor personal use)		2,000	2,000

5.6 SUBSIDIARY BOOKS OF ACCOUNTS

So far we have discussed some of the transactions that are recorded in journal. Journal is the primary book of account where transactions are recorded date-wise. In case of large organizations where there are numerous transactions, it will be difficult to record all the transactions through journal. Hence, for convenience of recording, the journal is divided into a number of special journals. These are known as subsidiary books. The number of subsidiary books maintained by a business

organization depends on the size of the organization and the nature of transactions. Now, we will discuss some subsidiary books maintained by a business organization in general.

Purchase Book

In purchase book the transactions relating to credit purchase of goods are recorded. But cash purchases and purchase of fixed assets are not recorded in this book. This book is also known as Purchase Journal or Bought Day Book. At the end of a certain period, the total of Purchase Book is posted to the debit side of Purchase Account and the suppliers' accounts will be credited with the respective amounts.

Purchase Returns Book

The transactions relating to return of goods to the supplier which were purchased on credit are recorded in Purchase Return Book. The goods may be returned due to not confronting to the specifications or defective goods or for any other reason. It is also known as Returns Outward Book. The total of this book, after a certain period, is credited to Returns Outward Account and the suppliers' accounts, to whom goods were returned, are debited with the respective amounts.

Sales Book

This book is meant for recording credit sale of goods. Cash sale of goods and sale of articles other than goods are not recorded in this book. This book is also known as Sales Journal or Sold Day Book. At the end of a certain period, the total of Sales Book is posted to the credit side of Sales Account and the customers' accounts will be debited with the respective amounts.

Sales Return Book

When goods sold on credit are returned by the customers, they are recorded in Sales Return Book or Returns Inward Book. At the end of a certain period, the total of this book is debited to Returns Inward Account and the customers' accounts, who have returned the goods, are credited with the respective amounts.

Bills Receivable Book

This book is used to record all promissory notes received and Bills of Exchange accepted by customers for the amounts due from them. A promissory note contains an unconditional promise in writing, to pay a certain sum of money only to a certain person on a specific future date.

Bills Payable Book

This book is used to record all promissory notes given and Bills of Exchange accepted by the business for the amounts due to suppliers. A bill of exchange is an instrument in writing, containing an unconditional order to pay a certain sum of money only to a certain person on a specific future date.

5.7 MEANING OF LEDGER

Although journal is chronological record of all business transactions, yet it cannot provide all information regarding a particular account at one place. The journal cannot show the net effect of various transactions affecting a particular person, asset, revenue and expense. For example, if a trader wants to know the amount due to a particular supplier or the amount

due from a particular customer, he will have to go through the whole journal. It would be a tedious and time consuming process. To overcome this difficulty, another book of account, in addition to Journal/special purpose books, is maintained. This book is called 'Ledger'.

Ledger is a book of account which contains a condensed and classified record of all transactions of the business posted from the journal. It is also called the **book of final entry.** In other words, the book, which contains accounts, is known as the ledger or Principal Book. Ledger provides necessary information regarding various accounts. Personal accounts in ledger show how much money firm owes to the creditors and the amount it can recover from its debtors. The real accounts show the value of properties and also the value of stock. Nominal accounts reflect the sources of income and also the amount spent on various items.

In accounting all transactions are ultimately recorded in the ledger. In this book, separate accounts are opened for each 'account head' and all transactions relating to a particular 'account head' will be posted in the concerned account. An account for each person, each type of revenue, expense, asset and liability is opened in the ledger. For example, all transactions relating to a particular supplier; say Vivek will be posted to the account of Vivek. This helps in ascertaining the amount due to Vivek.

Ledger is generally maintained in the form of a bound register. First few pages of the ledger has ordinary horizontal ruling for indexing. Remaining pages are ruled like an account and is consecutively numbered. The index pages are used for writing the names of accounts and the Folio No. (Page No.) where a particular account has been opened for easy location. The ledger may also be maintained in loose-leaf form instead of one bound book.

Ledger is the 'King of all the Books of Accounts': Ledger is called the king of all the books of account, because it is the book which alone can exhibit the position of each 'account head' in a convenient form. It can supply all the useful information such as the net result of various transactions involving an asset, a liability, capital, revenue and an expense.

Ledger is the ultimate destination of all transactions because posting is made from the journal to the ledger. The information available in the ledger in classified and summarised form also facilitates the preparation of a Trading and Profit and Loss Account and a Balance Sheet. Thus, Ledger is called the King of all books because no other book of account can supply all the information like ledger.

Utility/Importance/ Advantages: The utility/importance of 'Ledger' can be summarised as follows:

a) **Condensed Scattered Information:** The ledger brings out the scattered information from the 'Journal'. It shows the condensed information under each account head.
b) **Full Information at a Glance:** As the ledger records both the debit and credit aspects in two different sides, the complete position of an account can be ascertained at a glance.

c) **Balance:** At the end of a specified period, the net effect of transactions of a particular ‘account head’ can be ascertained by finding out the balance of that account. For example, how much is due from a customer or how much is payable to a creditor or what is the total amount of purchases or what has been the expenditure on different heads, all these information can be ascertained by balancing the accounts appearing in the ledger.

d) **Trial Balance:** As both the aspects are recorded, the net debit effect and the net credit on the accounts must be equal on a particular date. This is verified by preparing a statement called Trial Balance. This is possible only if the ledger accounts are maintained.

e) **Preparation of Final Accounts:** Ledger is the ‘store-house’ of all information relating to the transactions. It facilitates the preparation of a ‘Profit and Loss Account’ from the balances of revenue and expenses accounts. It also, facilitates the preparation of a ‘Balance Sheet’ from the balances of assets, liabilities and capital accounts.

Purpose of Ledger: A businessman requires various information to ascertain the net results, financial position and progress of the business. Ledger can provide various information, which are given below.

a) **Information Regarding Debtors :** A trader can know the amount of money receivable from various customers and others who are known as debtors.

b) **Information Regarding Creditors :** A trader can know the amount of money payable to various suppliers and others who are known as creditors.

c) **Information Regarding Purchases and Sales :** The total purchase of goods and the total sale of goods during a specific period can be known by preparing Purchase A/c and Sales A/c.

d) **Information Regarding Revenue and Expenses :** The amount of revenue earned from different sources and the amount of expenses incurred on different account heads for a particular period may be known from the ledger.

e) **Information Regarding Assets and Liabilities :** The amount of various types of assets such as Land, Building, Machinery, cash in hand, cash at bank, etc. and the amount of various liabilities can be obtained from ledger.

Sub-divisions of Ledger: Ledgers may be sub-divided in the following manner:

A) **Personal Ledger**

I. Debtors' ledger or Sales Ledger and
II. Creditors' ledger or Bought Ledger.

B) **General or Nominal Ledger:** These are explained below:

a) **Personal Ledger:** The ledger which contains the accounts of persons, firms or organisations to whom goods are sold on credit or from whom goods are bought on credit, is known as personal ledger. Generally personal ledgers are sub-divided into

i) Debtors' ledger or Sales Ledger and

ii) Creditors' ledger or Bought Ledger.

I. **Debtors' Ledger or Sales Ledger:** In this ledger, the accounts of all Debtors for goods sold are maintained. Posting is made from Sales Day Book, Purchase Returns Book, Cash Book, Bills Receivable Book and Journal Proper for the transactions affecting the accounts of Debtors.

II. **Creditors' Ledger or Bought Ledger:** In this ledger, the accounts of all Creditors for goods purchased are maintained. Posting is made from Purchase Day Book, Purchase Returns Book, Cash Book, Bill Payment Book and Journal proper for the transactions affecting the accounts of Creditors.

b) **General Ledger:** This ledger contains all accounts other than the accounts of Debtors and Creditors for goods. All accounts falling in the category of Assets, Liabilities (except debtors and creditors for goods), Capital, Revenue and Expense are maintained in this ledger. For example, if a machine is sold to

Ram on credit, his account will appear in General Ledger; again, if goods are sold to him on credit, his account will appear in the Debtors' Ledger. General Ledger is also known as Impersonal Ledger or Nominal Ledger.

Distinctions between Journal and Ledger: Following are the distinctions between a Journal and a Ledger.

Sl. No.	Points of Distinction	Journal	Ledger
i)	Nature	Journal is a book of primary entry	Ledger is a book of final entry.
ii)	Basis of Recording	In Journal, transactions are recorded on the basis of voucher	Here transactions are recorded from the journal
iii)	Manner of Recording	Here transactions are recorded in order to happening i.e. date-wise	Here transactions are recorded on the basis of 'account heads'
iv)	Narration	Every entry in the journal is followed by a narration	Posting in the Ledger is not followed by any narration
v)	Form of Information	It provides information in scattered form	It provides information in a summarised and classified form

Format of a Ledger Account: There are two types of forms for writing up Ledger Accounts namely– (a) Horizontal form and (b) Vertical or 'T' form. These are discussed below.

a) Horizontal Ledger Account is Ruled out as follows:

"AB & Co" Account

Date	Particulars	J.F.	Debit Amount (Rs.)	Credit Amount (Rs.)	Debit Or Credit	Balance (Rs.)

In this form of ledger, balance is ascertained after every transaction. This method is generally used in bank. Where the accounts are maintained in computers through the use of accounting software like Tally, accounts are also prepared in this from.

a) A vertical or 'T' shaped form is ruled as under:

"AB & Co" Account

Dr. **Cr.**

Date	Particulars	J. F.	Amount (Rs.)	Date	Particulars	J. F.	Amount (Rs.)
1	2	3	4	1	2	3	4

J.F. (Journal Folio): In this column, the page number of the Journal where the transaction was originally recorded is mentioned. It helps in locating the entry in the Journal. Again, in Journal the page number of the Ledger where the account appears is written in the Ledger Folio column.

Features of Ledger Accounts: In 'T' shaped form of writing up a ledger account, balance is ascertained periodically. In this book 'T' shaped form of Ledger Account has been used. Such Ledger Account has the following features:

a) **Two Sides:** A Ledger Account has two sides, namely Left hand and Right hand side. Left hand side is called the Debit side while the right hand side is called the Credit side.

b) **Recording of Two Aspects:** Posting is made on the debit side of the ledger account which has been debited in the journal and the account which has been credited in the journal is posted on the credit side of the ledger account

c) **Balancing:** Each account in the ledger is balanced independently. This is done by ascertaining the difference between the total of the Debit side and total of the Credit side.

   Closing and Opening Balance: The balances of account ascertained at the end of a particular period are known as closing balances. These balances become the opening balances in the next period.

5.8 MEANING OF LEDGER POSTING

Ledger posting means making entries of the transactions in the ledger books from the journal. Posting is a process of transferring debit and credit aspects of the entries appearing in the journal and other books of original entry to the debit and credit sides of the relevant accounts in the ledger. Postings are made using the word 'To' and 'By' as a prefix. For debit side entry 'To' prefix is used and for credit side entry 'By' prefix is used. The aim of posting is to make a classified and summarised record of all business transactions under appropriate account heads.

5.9 RULES REGARDING POSTING

Rules generally followed while posting the transactions in the Ledger: The following basic rules are to be followed while posting the transactions in the ledger:

a) Separate accounts should be opened in the ledger for posting the different transactions recorded in the journal.

b) All the transactions pertaining to one account head should be posted to that account.

c) Two aspects of the business transaction namely – debit and credit aspects– should be posted on the debit side and credit side of the account respectively.

Basic Points Regarding Posting: Basic points to be kept in mind before posting are:

1) **Opening of Separate Accounts:** Separate accounts should be opened for different 'account heads' in the ledger for posting the different transactions recorded in the journal. For example: Cash A/c, salary A/c, purchases A/c etc.
2) **One Account for each kind of Transaction:** One account should be opened for each kind of transaction. Transactions taking place during an accounting period relating to that particular account should be posted to that account only. If more than one account is opened for one kind of transactions, the object of summarisation of transactions of similar nature will not be achieved. For example, it may be found that in the journal, Cash A/c has been debited during a week, say on six different dates and the same account has been credited on four different dates. For recording these transactions in ledger, only one Cash A/c will be opened in ledger for transactions taking place on all the days and posting of all entry relating to Cash A/c will be made in that account only.

Methods of Posting: There are three methods of posting from Journal to Ledger:

a) **Entry-wise Posting:** Posting of each journal entry in the affected 'account heads' may be made before proceeding to the next entry.
b) **Account Head-wise Posting:** Posting may be made 'account head' wise i.e. posting of all Debits and Credits relating to one particular account head may be made before taking up another account head.
c) **Page-wise Posting:** Posing may be made in all account heads appearing in one particular page of the journal before taking up the next page.

Procedure for posting into an account:

a) **Which has been debited in the journal–**

Step 1: Concerned account in the ledger should be located. If no account appears in the ledger for that account head, a new account should be opened and the name of the new account head along with the Folio No. should be recorded in the index page.

Step 2: In the 'Date column' on the debit side, date of the transaction should be recorded.

Step 3: In the 'Particulars column' on the debit side, the name of the 'account head' credited in the journal, should be recorded as:

"To … … … (name of the account credited) … … …"

Step 4: In the 'J.F column' on the debit side, the Folio (page) number of the Journal where the transaction has been originally recorded should be entered. Also the Folio (page) number of the ledger in which the concerned account appears, should be entered in the 'Ledger folio column' of the Journal for cross reference.

Step 5: In the 'Amount column' on the debit side, the amount as recorded in the journal against the account where the posting has been made should be entered.

b) Which has been credited in the journal

Step 1: Concerned account in the ledger should be located. If no account appears in the ledger for that account head, a new account should be opened and the name of the new account head along with the Folio No. should be recorded in the index page.

Step 2: In the 'Date column' on the Credit side, the date of the transaction should be recorded.

Step 3: In the 'Particular column' on the credit side, the name of the 'account head' debited on the journal, should be recorded as:

"By … … … (name of the account credited) … … …"

Step 4: In the 'J.F. column' on the credit side, the Folio (page) number of the Journal where the transaction has been originally recorded should be entered'. Also the Folio (page) number of the ledger in which the concerned account appears, should be entered in the 'Ledger folio column' of the Journal for cross reference.

Step 5 : In the 'Amount column' on the credit side, the amount as recorded in the journal against the account where the posting has been made should be entered.

Note: When the debit aspect of a transaction entered in the journal is posted in the ledger, only the debit side of that account is affected; when the credit aspect of a transaction entered in the journal is posted in the ledger, only credit side of that account is affected. In order to have a complete record of each transaction, both the aspects will have to be posted.

Posting of simple Journal Entry:

Example: On 1st January 2008, Mr. X started business with a capital Rs. 18,000

Journal of Mr. X

Date	Particulars	L. F.	Dr. Amount (Rs.)	Cr. Amount (Rs.)
2008 Jan1	Cash A/c Dr. To Capital (Being cash brought in as capital)		18,000	18,000

In the above entry, the accounts affected are Cash A/c and Capital A/c. Therefore, in the ledger, Cash A/c and Capital A/c will be opened. Posting in both the accounts are shown as under.

Posting in Cash Account:

In the Books of Mr. X Ledger Accounts Cash Account

Dr. **Cr.**

Date	Particulars	L. F.	Amount (Rs.)	Date	Particulars	L. F.	Amount (Rs.)
2008 Jan 1	To Capital		18,000				

As the Cash A/c has been debited in the Journal, Cash account will also be debited in the Ledger. This means that posting will be made in the debit side of the Cash A/c. On the debit side, in the 'date column', date of the transaction will be written, i.e. Jan. 1, 2008. In 'particulars column', the account which has caused an effect in the Cash A/c will be written. As per the entry in the journal, Capital will be written in the 'particulars column' with 'To' as prefix. In the 'J.F. column', the Folio number (page number) where the entry appears in journal will be written. In the 'amount column' in the ledger, the figure stated against Cash account in the journal, as shown above, will be entered.

Posting in the Capital Account:

In the Books of Mr. X Ledger Accounts Capital

Dr. **Cr.**

Date	Particulars	L. F.	Amount (Rs.)	Date	Particulars	L. F.	Amount (Rs.)
				2008 Jan 1	By Cash A/c		18,000

As the Capital has been credited in the journal, Capital will also be credited in the Ledger. This means that posting will be made on the credit side of the Capital. On the credit side, in the 'date column', the date of the transaction i.e. Jan. 1. 2008, will be written. In the 'particulars column', the account which has caused an effect in the Capital will be written. As per the entry in the journal, Cash A/c has caused an effect in the Capital. Therefore, Cash A/c will be written in the 'particulars column' with a prefix 'By'. In the 'J.F column', the Folio number (page number) where, the entry appears in journal will be written. In the 'amount column' in the ledger, the figure stated against Capital in the journal, as shown above, will be entered.

Example: Purchase of furniture from Modern Furnisher on credit for Rs.12,000 on January 1, 2008.

Journal Entry

Furniture A/c Dr.   12,000

To Modern Furnisher   12,000 (Being furniture purchased on credit)

The amount of Rs. 12,000 will be debited to the Furniture A/c and credited to Modern Furnisher in the following way–

Ledger

Furniture Account

Dr. **Cr.**

Date	Particulars	L. F.	Amount (Rs.)	Date	Particulars	L. F.	Amount (Rs.)
2008	To Modern Furnisher		12,000				

Ledger

Modern Furnisher

Dr. **Cr.**

Date	Particulars	L. F.	Amount (Rs.)	Date	Particulars	L. F.	Amount (Rs.)
				2008 Jan1	By Furniture Account		12,000

5.10 BALANCING OF AN ACCOUNT

The 'balance' is a term used in accounting which means the difference between the two sides of an account, or the total of the account containing only debits and only credits. Balancing of an account is an important aspect of accounting. It implies the process of ascertaining the net difference of an account after totalling of both sides – viz. debit side and credit side.

In simple words, balancing means the insertion (writing) of the difference between the two totals, debit side total and credit side total, in the smaller (smaller total) side, so that the (grand) totals of the two sides become equal.

Balancing is done periodically, i.e. weekly, monthly, quarterly, half- yearly or yearly, depending on the requirements of the business.

A computerised system will usually print the balance of the account after each transaction, but in a manual system we must calculate the balance. The balance of an account shows the position of an account on a particular day. Such balance of an account may be **'Debit balance' or 'Credit balance'**.

Basic Points of Balancing an Account:

a) The total of both the sides of an account may be equal. In that case, the account does not show any balance.

b) The total of the debit side may be more than the total of the credit side. In that case, the account shows debit balance.

c) The total of the credit side may be more than the total of the debit side. In that case the account shows credit balance.

Nature of Ledger Account Balances: The nature of balances of different classes of ledger accounts will be as under.

1) **Asset Account:** Assets account will always show debit balance. For example, Cash Account will always show debit balance, because all cash receipts are shown on the debit side and all cash payments are shown on the credit side. Since cash payments cannot be more than the receipts,

cash account will show the debit balance. When cash receipts are equal to the cash payments then the cash account will not show any balance. Thus, it never shows credit balance.

2) **Liability Account:** Liability accounts will always show credit balance. For example Creditors Account, Bills Payable Account, Outstanding expense Account, Loan from Gauri Account etc.

3) **Capital Account:** Capital account will always show credit balance.

4) **Revenue Account:** Revenue accounts will always show credit balance. For example, Sales Account, Commission Received Account etc.

5) **Expense Account:** Expense account will always show debit balance. For example, Sales Account, Commission Allowed Account, WagsAccount etc.

6) **Drawings Account:** Drawings account will always show debit balance.

5.11 LET US SUM UP

In this unit we have discussed the following points–

- Journal is the primary book to record business transactions
- Steps involved in the process of journalising
- Journal entries relating to purchase and sale of goods, receipts and payment of cash etc.
- The various subsidiary books like purchase book, sales book, sales return book etc.
- Ledger contains all the accounts and known as principal book.
- Various advantages of ledger and sub- division of ledger.
- Differences between journal and ledger.
- The process of transferring journal into ledger which is known as ledger posting.

- Basic points regarding ledger posting and balancing of accounts.

5.11 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

5.11 CHECK YOUR PROGRESS

Q.1: What is journal?

Q.2: Discuss the steps of journalising.

Q.3: What is Purchase Book?

Q.4: What is Sales Return Book?

Q.5: What is ledger book?

Q.6: State any two points of importance of ledger.

Q.7: What are the functions of a ledger account?

Q.8: State any two points of differences between journal and ledger.

Q.9: What is the object of balancing an account?

5.11 ANSWER TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Journal is a book of original entry in which transactions are recorded as and when they occur in chronological order from source documents.

Ans. to Q. No. 2: Step 1: Identification of accounts or ‘account heads’

affected by the transaction.

Step 2: Classification of accounts or account heads. Step 3: Application of Rules for Debit and Credit

Ans. to Q. No. 3: The transactions relating to credit purchase of goods are recorded in purchase book.

Ans. to Q. No. 4: When goods are sold on credit are returned by the customers, they are recorded in Sales Return Book. At the end of a certain period, the total of this book is debited to Returns Inward Account and the customers’ accounts, who have returned the goods, are credited with the respective amounts.

Ans. to Q. No. 5: Ledger is a book of account which contains a condensed and classified record of all transactions of the business posted from the journal. It is also called the book of final entry.

Ans. to Q. No. 6: i) Condensed scattered information

ii) Full information at a glance

Ans. to Q. No. 7: Functions of ledger account are to provide: (a) Information regarding Debtors (b) Information regarding Creditors

(c) Information regarding Purchases and Sales (d) Information regarding Revenue and Expenses (e) Information regarding Assets and Liabilities.

Ans. to Q. No. 8: i) Journal is a book of primary entry whereas ledger is a book of final entry.

ii) In Journal, transactions are recorded on the basis of voucher. But in ledger transactions are recorded from the journal.

Ans. to Q. No. 9: The object of balancing of account is to know periodical balance of an account.

5.12 ASSIGNMENT

Q.1: Describe different types of Books of Account.

Q.2: What is meant by journal?

Q.3: What is Journalising? How is it done?

Q.4: Journalise the following transactions-

i) Cash paid to Mr. X– Rs. 5,000

ii) Purchased goods for– Rs. 15,000

iii) Sale of goods for cash– Rs. 1,00,000

iv) Wages paid in Cash– Rs. 10,000

v) Amount paid to XY Company– Rs. 10,000

Q.5: What is meant by ledger? What are the main purposes of ledger?

Q.6: Prepare relevant accounts in the ledger book from the following information–

i) Furniture purchased– Rs. 10, 000

ii) Purchase goods on credit from X Co.– Rs. 15,000

iii) Sale of goods for cash– Rs. 1,00,000

iv) Salaries paid in Cash– Rs. 10,000

v) Amount paid to X Co.– Rs. 10,000

Q.7: What is meant by ledger posting?

Q.8: What is meant by balancing of an account?

Unit 6: CASH BOOK

6

Unit Structure

6.1 Learning Objectives

6.2 Introduction

6.3 Meaning of Cash Book and Pass Book

6.4 Importance of Cash Book

6.5 Different Types of Cash Book

6.6 Illustrations

6.7 Petty Cash Book and Imprest System

6.8 Let Us Sum Up

6.9 Further Reading

6.10 Check your progress

6.11 Answers to Check Your Progress

6.12 Assignment

6.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- explain the meaning of cash book
- discuss the differences between cash book and pass book
- analyse the importance of cash book
- explain the different types of cash book
- record the transactions in cash book
- explain the meaning of petty cash book.

6.2 INTRODUCTION

A In the earlier units we have come across the meaning of journal and ledger books. You are also aware about the meaning of debit and credit and the rules for recording the transactions in journal book and the rules for ledger posting. The rules of debiting and crediting an account are also applied in preparing a cash book.

In this unit we will discuss the meaning, importance and different types of cash book. We will also focus on the preparation of cash book by following the rules of debit and credit.

In this unit you will gain an understanding on the importance of cash book in a business organisation and the method of preparing the cash book.

6.3 MEANING OF CASH BOOK AND PASS BOOK

Cash Book is a subsidiary book maintained by business firms to record cash and bank transactions. The basis of any business is finance and that is why cash and bank balance are the most important aspects in accounting. In business most of the transactions relate to receipt of cash, payments of cash, sale of goods and purchase of goods. So it is necessary to have proper books for each of such transactions. Cash book is a subsidiary book which records the receipts and payment of cash. With the help of cash book, cash and bank balance can be checked at any point of time.

In order to deposit, receive, withdraw, pay any amount through a bank, an account is opened in the bank. The accountholder as well as the bank keeps records of all such deposits and withdrawals. Records of such deposits and withdrawals are made known to the accountholder by the bank through a book. This book is called Pass Book. The accountholder cannot make entries in the pass book but he can verify the entries with his records in the cash book.

6.4 IMPORTANCE OF CASH BOOK

Cash book is the most important subsidiary book, because it keeps the record of cash transactions of the business. The following are the importance of cash book:

a) **Helpful in Ascertaining the True Cash Position:** If Cash Book is not maintained the true position of cash cannot be known. The Cash Book gives the true position of cash transactions. At any time the balance of cash as shown by the cash book must agree with the physical balance of cash in hand in the cash book.
b) **Helps in Cash Management:** Cash Book helps in the control of cash transactions. It is maintained by every business, whether big or small in size. It is simply because every business must be very cautious about its cash management i.e. cash receipts and cash payments. The business must know the amount of cash that has been collected/payments that have been made daily, weekly and monthly and also the periodic balance of cash in hand, so that effective steps for utilisation of cash balance can be taken.
c) **Helpful in Preventing Embezzlement:** The maintenance of cash book help in preventing embezzlement and manipulation. Unless cash book is maintained, the business will be in the dark about the daily cash position and this may increase the chance of committing frauds by the concerned staff.
d) **Serves as a Documentary Evidence for Cash Balance:** Cash Book serves as a documentary evidence for the available cash balances because the actual cash balance is compared by the cash balance as shown by Cash Book daily.
e) **Ascertainment of Daily Cash Transactions:** Since all cash transactions

are recorded in cash book, it is easy to ascertain the cash receipt and cash payment on daily basis from the cash book.

f) **Ascertainment of Cash Balance:** Cash balance can be known at any time by ascertaining the balance of the cash book at that point of time. There is no need of calculating actual cash in the box.

g) **Guard Against Defalcation:** The balance of cash as shown by the cash book can be verified with physical balance of cash in the cash book. This process of verification acts as a guard against defalcation of cash.

h) **Rectification of Errors:** Any mistake or error can be detected at the time of verification of cash book. If there is a difference between the actual cash and the balance as per Cash Book, it means there is some error.

6.5 DIFFERENT TYPES OF CASH BOOK

The type of cash book is dependent upon the type of transactions we want to record in it. Thus, the types of cash book may be as below-

A) Single column Cash Book:

1) Cash book having one column for Cash
2) Cash book having one column for Bank

B) Double Column Cash Book:

1) Cash Book having two columns– one for cash and another for bank.
2) Cash book having two columns– one for cash, another for discount.
3) Cash book having two columns– one for bank, another for discount.

C) Triple Column Cash Book:

1) Cash book having three columns– first for cash, second for bank and third for discount.

D) Multiple Columns Cash Book:

Cash book having columns for different categories of receipts and payments, Receipts from Merchandise Sales, Debtors, Bills

Receivables, Interest, and other Receipts are entered in the Receipts side under respective columns. Payment for purchases for merchandise, Creditors, Bill Payables, Salary, Wages, Interest, Rent, etc. are entered under respective columns in the payment side.

6.6 ILLUSTRATIONS

Illustration 1:

Prepare single column cash book from the following information in the books of AB Enterprise–

Date	Particulars	Amount (Rs.)
May, 2011 1	Cash in hand	5,000
2	Cash purchase	10,000
3	Cash sales	20,000
4	Cash paid to Ram	2,000
7	Cash received from Hari	1,000
10	Purchase Stationery	500

Solution: In the books of

AB Enterprise

Dr. Cash Book Cr.

Date 2011	Receipts	L/F	R/N	Amount Rs.	Date 2011	Payments	L/F	V/N	Amount Rs
May 1	To Balance b/d			5,000	May 2	By Purchase A/c			10, 000
May 3	To Sales			20, 000	May 4	By Ram			2, 000
May 7	To Hari			1, 000	May 10	By Stationery A/c			500
					May 10	By Balance c/d			13, 500
				26, 000					**26, 000**
May 11	To balance b/d			13, 500					

Illustration 2:

Prepare single column cash book from the following information in the books of MM Enterprise–

Date	Particulars	Amount (Rs.)
April, 2012 1	Cash in hand	20,000
2	Cash received from Gautam	10,000
3	Salary Paid	2,000
4	Goods purchased from Ram on credit	2,000
7	Cash purchase	1,000
12	Advertisement Expenses paid	1,500

Solution:

In the books of MM Enterprise

Dr. **Cash Book** **Cr.**

Date 2012	Particulars	L/F	R/N	Amount Rs	Date 2012	Particulars	L/F	V/N	Amount. Rs
April 1	To Balance b/d			20,000	April 3	By Salary			2, 000
April 2	To Gautam			10, 000	April 7	By Purchase A/c			1, 000
					April 12	By Advertisement Expenses A/c			1, 500
					April 12	By Balance c/d			25, 500
				30, 000					**30, 000**
April 13	To balance b/d			25, 500					

Transaction of April 4 is a credit transaction and therefore it is not recorded in cash book.

Ilustration 3:

Prepare double column cash book from the following information in the books of Abhijit Enterprise–

Date	Particulars	Amount (Rs.)
June, 2013 1	Cash in handCash at Bank	20,000 15,000
3	Cash paid to Imran	10,000
5	Rent Paid	1,000
10	Goods purchased	5,000
12	Cash deposited into Bank	2,000
15	Furniture purchased and payment made by cheque	1,500

Solution: **In the books of**

Abhijit Enterprise

Dr. **Cash Book** **Cr.**

Date 2013	Receipts	L / F	V / N	Amount Cash Rs.	Amount Bank Rs.	Date 2013	Particulars	L / F	V / N	Amount Cash Rs.	Amount Bank Rs.
June 1	To Balance b/d			20,000	15,000	June 3	By Imran			10,000	
June 12	To Cash	C			2,000	June 5	By Rent A/c			1,000	
						June 10	By Purchase A/c			5,000	
						June 12	By Bank	C		2,000	
						June 15	By Furniture A/c				1,500
						June 15	By Balance c/d			2,000	15,500
				20, 000	**17, 000**					**20,000**	**17,000**
June 16	To Balance b/d			2, 000	15, 500						

Illustration 4:

Prepare double column cash book from the followinginformation in the books of Abhijit Enterprise–

Date	Particulars	Amount (Rs.)
June, 2014		
1	Cash in hand	50,000
	Cash at Bank	50,000
3	Payment made to Amar by cheque	10,000
5	Commission received	1,000
10	Goods purchased and payment made by cheque	5,000
12	Cash deposited into Bank	20,000
15	Cash withdrawn from bank for office use	2,500

Solution:

In the books of
Abhijit Enterprise
Cash Book

Dr. **Cr.**

Date 2014	Receipts	L/F	R/N	Amount Cash Rs.	Amount Bank Rs.	Date 2014	Particulars	L/V/F N	Amount Cash Rs.	Amount Bank Rs.
June 1	To Balance b/d			50, 000	50,000	June 3	By Amar			10,000
June 5	To Commission			1,000		June 5	By Purchase A/c			5,000
June12	To Cash	C			20,000	June 12	By Bank A/c	C	20,000	
June15	To Bank	C		2,500		June 15	By Cash	C		2,500
						June 15	By Balance c/d		32, 000	53, 500
				53, 500	**70, 000**				**53, 500**	**70, 000**
June16	To Balance b/d			33, 500	52, 500					

Illustration 5:

Prepare triple column cash book from the following information in the books of Assam Enterprise

Date	Particulars	Amount (Rs.)
January, 2014 1	Capital introduced in business	70,000
2	Cash deposited into Bank	40,000
3	Goods sold and payment received by cheque and the cheque was deposited into bank on the same day	10,000
3	Discount allowed	50
10	Goods purchased for Rs. 5,100 and discount received Rs. 100	
12	Cash deposited into Bank	20,000
15	Salaries paid by cheque	2,500
20	Rent paid by cheque	10,000

Note: Discount column is not balanced. Periodical total is posted torespective ledger account in the ledger.

Solution:

In the books of

Abhijit Enterprise

Dr. **Cash Book** **Cr.**

Date 2014	Receipts	L/F	R/N	Amount Cash Rs.	Amount Bank Rs.	Amount Dis-count	Date 2014	Particulars	L/F	V/N	Amount Cash Rs.	Amount Bank Rs.	Amount Discount
Jan. 1	To Capital			70, 000			J						
June 2	To Cash	C			40, 000		June 2	By Bank	C		40,000		
June 3	To Sales				10, 000	50	June 10	By Purchase			5, 000		100
June 12	To Cash A/c	C			20, 000		June 12	By Bank	C		20,000		
							June 15	By Salaries A/c				2,500	
							June 20	By Rent A/c				10,000	
							June 20	By Balance c/d			5, 000	57, 500	
				70, 000	**70, 000**	**50**					**70,000**	**70, 000**	**100**
June 21	To Balance b/d			5, 000	57, 500								

6.7 PETTY CASH BOOK AND IMPREST SYSTEM

In a situation where all receipts are paid into bank and all payments are made by cheques; or where there are large as well as small cash transactions, it becomes necessary to maintain another subsidiary book known as Petty Cash Book. This book is maintained with separate column for each normal head of expenditure and contains a record of payments made out of cheque drawn periodically for the purpose. There are several small payments a business entity has to make which are insignificant to be paid by cheques.

The cheques are drawn periodically for petty expenses and debited to petty cash account from the cash book. The amount paid by the petty cashier indicates the summary of expenses which are debited and petty cash account is credited. The heads of expenditure are not required to be separately posted in the ledger. This book is known as Analytical Petty Cash Book as various payments are automatically analysed being recorded separately in respective columns. The excess of petty cash amount over payment implies unspent balance laying with petty cashier.

The Imprest System of Petty Cash: The best system of maintaining petty cash is the imprest system. Under this system, having estimated the requirement of petty expenses for a certain period usually a month, such amount is withdrawn from the bank and handed over to the petty cashier to start with. The sum of money so advanced is known as imprest.

At the end of the month, the petty cashier will submit an account of disbursements made and a cheque for the exact sum spent by the petty cashier will be issued to him so that he may begin his new period with the original amount. Thus the original balance is restored.

This system provides an advantage because it facilitates conduct of an internal check over the petty cashier. The petty disbursement will be scrutinised by the head cashier. Every time he issues a fresh cheque for the exact amount spent. Secondly, the imprest being paid periodically from time to time, prevents accumulation and

chance of defalcation of cash. All items of transactions having been recorded in analytical order under different heads, eventual clerical work of ledger posting had been reduced.

6.8 LET US SUM UP

- In this unit we have discussed the following points–
- Cash book records all cash receipts and cash payments.
- Cash book are of three types- Single column cash book, Double column cash book and Triple column cash book.
- Petty cash book is maintained to record small payments

6.9 FURTHER READING

1) Bhattacharya, Ashis; Financial Accounting; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; Financial Accounting; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; Practice of Financial Accounting; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; Accountancy; New Delhi: Sultan Chand & Sons.

6.10 CHECK YOUR PROGRESS

Q.1: Explain the meaning of Pass Book.

Q.2: What is cash book?

Q.3: State any two points of importance of cash book.

Q.4: Prepare a SINGLE COLUMN CASH BOOK from the following.

2007		Rs.
April 1	Cash in hand (Opening balance)	5,400
April 2	Bought goods for cash	750
April 4	Paid to Madan Kumar	105
April 7	Sold goods for cash	2,750
April 8	Deposited in the bank	5,200
April 9	Paid wage in cash	130
April 14	Paid for office furniture	395
April 14	Received cash from Dipak	525

Q.5: From the following transactions prepare a double column Cash Book with cash and bank column

01-01-07	Cash in hand Rs. 100 Cash at Bank Rs. 400
02-01-07	Cash purchase Rs. 50
03-01-07	Cash sales Rs. 200
04-01-07	Received Rs.100 from X
05-01-07	Received a cheque of Rs.200 from Y
06-01-07	Cheque was deposited into Bank
07-01-07.1	Purchase furniture and payment was made by cheque Rs. 220
08-01-07	Withdraw Rs. 100 from bank for office use
09-10-07	Paid Rs.50 into bank.
10-10-07	Withdraw Rs. 100 from bank for personal use

6.11 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Records of bank deposits and withdrawals are made in a small book by the bank and given to the accountholder, this book is called Pass Book.

Ans. to Q. No. 2: Cash Book is a subsidiary book maintained by business firms to record cash and bank transactions. It records all receipts and payment whether in cash or by cheque.

Ans. to Q. No. 3:: i) Helpful in ascertaining the true cash position

ii) Helps in cash management

Ans. to Q. No. 4:

Date 2007	Receipts	L / F	R / N	Amount Rs	Date 2007	Payments	L / F	V / N	Amount. Rs
Apr 1	To Balance b/d			5,400	Apr 2	By Purchase A/c			750
Apr 7	To sales A/c			2,750	Apr 4	By Madan Kumar			105
Apr 14	To Dipak			525	Apr 8	By Bank			5,200
					Apr 9	By Wages A/c			130
					Apr 14	By Furniture A/c			395
					Apri 14	By Balance c/d			2,095
				8,675					**8,675**
Apr 15	To Balance b/d			2,095					

Ans. to Q. No. 5:

Cash Book with Cash and Discount Column

Date 2007	Receipts	L / F	R / N	Amount		Date 2007	Particulars	L / F	V / N	Amount	
				Cash Rs.	Bank Rs.					Cash Rs.	Bank Rs.
1 Jan	To Balance b/d			100	400	2 Jan	By purchase A/c			50	
3 Jan	To Sales...			200		6 Jan	By Bank	C		200	
4 Jan	To X			100		7 Jan	By Furniture				220
5 Jan	To Y			200		8 Jan	By Cash A/c	C			100
6 Jan	To Cash A/c	C			200	9 Jan	By Bank	C		50	
8 Jan	To Bank	C		100		10 Jan	By Drawings A/c				100
9 Jan	To cash A/c	C			50						
10 Jan						11 Jan	By Balance c/d			400	230
				700	**650**					**700**	**650**
12 Jan	To Balance b/d			400	230						

6.12 ASSIGNMENT

Q.1: What is cash book?

Q.2: What are the different types of cash book?

Q.3: Discuss the importance of cash book.

Q.4: Prepare cash book from the following information-2014

i. April 1:Cash balance Rs. 1,00,000

ii. April 5:Cash deposited into bank Rs. 50,000

iii. April 7:Purchase goods for Rs. 15,000

iv. April 8:Goods sold for Rs. 20,000

v. April 10: Goods sold for Rs. 5,000 and payment received by cheque

vi. April. 12: Goods purchased for Rs. 600

vii. April. 15: Cash paid to Ram Rs. 1,000

Unit 7: TRIAL BALANCE

7

Unit Structure

7.1 Learning Objectives

7.2 Introduction

7.3 Concept of Trial Balance

7.4 Objects of Trial Balance

7.5 Format of a Trial Balance

7.6 Preparation of Trial Balance

7.7 Limitations of Trial Balance

7.8 Let Us Sum Up

7.9 Further Reading

7.10 Check your progress

7.11 Answers to Check Your Progress

7.12 Assignment

7.1 LEARNING OBJECTIVES

After going through this unit, you will be able to:

- explain the concept of trial balance
- discuss the objects of trial balance
- explain the format of trial balance
- prepare trial balance
- analyses the limitations of trial balance.

7.2 INTRODUCTION

You are aware that whenever a transaction takes place, it is first recorded in journal, and then it is posted in ledger. After that all ledger accounts are balanced. We have discussed these topics in the units 4 and 5

In this unit, we will discuss trial balance, which is prepared after balancing all the ledger accounts. Trial balance is a statement which is prepared with the ledger balances. Trial balance helps in detecting the errors which may have been committed in recording or posting the transactions. At the same time, it facilitates the preparation of final accounts at the end of the accounting period.

This unit will help you in gaining knowledge about the preparation of trial balance and the importance of preparing it. At the same time you will come to know certain limitations of trial balance.

7.3 CONCEPT OF TRIAL BALANCE

You are aware that every business transaction is first recorded in the journal book and then these are transferred to ledger book. The cash transactions are recorded in the cash book directly which serves the purpose of recording the cash transactions both in journal and ledger.

In the process of recording the transactions in the books of accounts, the next job of the book-keeper is to ensure error free journal and ledgers. To a large extent, this can be ensured by preparing the trial balance.

Let us go through some of the definitions of trial balance–

Cropper defined trial balance as, "A Trial Balance is a classified list of the balances appearing, at any given date, in the Ledger or Ledgers before the closing entries have been made."

Thus, the trial balance is a statement which contains the ledge balances. It is prepared at the end of an accounting period. It ensures that no journal entry is left without posting it to the respective ledger and no ledger remains unbalanced. The book-keeper assures that journal and ledger books are arithmetically correct.

7.4 OBJECTS OF TRIAL BALANCE

The main objectives of preparing trial balance may be discussed as under–

a) **To Test Arithmetical Accuracy:** The trial balance is prepared to test the arithmetical accuracy of the transactions entered in journal and posted in the ledger.

b) **To Ensure Recording of Two Aspects:** Preparation of trial balance ensures the fulfilment of the principles of double entry system while recording transactions i.e. both the aspects of the transactions (debit and credit) are recorded and posted.

c) **To Detect Errors:** Trial balance helps in detecting and locating some of the errors that may have been committed in journalising the transactions and while posting them into ledger or balancing the ledgers or while preparing the trial balances itself.

d) **To Summarise the Financial Transactions:** Trial balance helps in summarising the business transactions. As the business transactions are recorded in the journal book date-wise and these are posted into the ledger periodically, transactions in the summarised form is available only in trial balance.

e) **To Facilitate Preparation of Final Accounts:** Final accounts help in ascertaining the financial position of a business concern. Trial balance facilitates the preparation of final accounts.

7.5 FORMAT OF A TRIAL BALANCE

A trial balance is usually prepared in the following format– Trial Balance of M/S .... as at ....

Particulars	L.F.	Debit Amount (Rs.)	Credit Amount (Rs.)
Account Head 1	—	—	—
Account Head 2	—	—	—
Account Head 3	—	—	—
Account Head 4	—	—	—
Account Head 5	—	—	—
Total		—	—

Particulars Column: In the 'particulars' column, the names of the account heads are written.

L.F. Column: In the 'ledger folio' column, the page numbers are written from where the information of a particular ledger is taken.

Debit Amount Column: In this column, the debit amount of the particular ledger is written.

Credit Amount Column: In this column, the credit amount of the particular ledger is written.

7.6 PREPARATION OF TRIAL BALANCE

The trial balance is an important statement that is prepared in order to prepare the final accounts. Trial balance contains balances of all ledger accounts, which may be related to incomes, expenses, assets, liabilities and capital of the business. The trial balance is generally prepared at the end of the accounting period. However, an organisation may prepare its trial balance monthly, quarterly, half yearly.

There are two different methods to prepare trial balance which we will discuss in this section. Let us first go through the steps of preparing the trial balance.

The preparation of trial balance involves the following steps:

- All the ledger accounts are closed at the end of an accounting period. The ledgers will show either debit or credit balance;
- The ledgers which show debit balances will be put on the debit side of the trial balance with the respective amounts. On the other hand, the ledgers which show credit balances will be put on the credit side of the trial balance with the respective amounts;
- The debit amount column and the credit amount column of the trial balance will be calculated;
- If both the columns show the same results, the trial balance is complete.

To recapitulate the journal entries are posted from the journal book in the respective ledgers maintained in the ledger book. The accounts which have been debited in journal will be posted on the debit side of that particular ledger and the account which have been credited in the journal will be recorded in 'Particulars' column as– "To (Name of the Account Credited). For example, for the transaction- Goods purchased for Rs. 5, 000 from XY Co. on credit, will be recorded in journal as–

Journal

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
	Purchase A/c Dr. To XY Co. (Being goods purchased on credit)	5,000		5,000

The journal entry will be posted in the respective ledgers of Purchase and XY Co. and will be balanced as under–

Dr. **Purchase Account** **Cr.**

Date	Particulars	J. F.	Amount (Rs.)	Date	Particulars	J. F.	Amount (Rs.)
	To XY Co.		5,000		By Balance c/d		5,000
			5,000				5,000
	To Balance b/d		5,000				

Dr. **XY Co.** **Cr.**

Date	Particulars	J. F.	Amount (Rs.)	Date	Particulars	J. F.	Amount (Rs.)
	To Balance c/d		5,000		By Purchase A/c		5,000
			5,000				5,000
					By Balance b/d		5,000

In the above example, Purchase account is showing debit balance whereas the account of XY Co. is showing credit balance. Therefore, in the trial balance, purchase account will be placed on the debit side and the account of XY Co. will be placed on the credit side. In this case, both the debit and credit amount columns will show the same result indicating that the trial balance is agreed. This procedure is followed for all the accounts. The trial balance will be look as under–

Trial Balance of................... as on ....

Account Heads	**L.F.**	**Debit (Rs.)**	**Credit (Rs.)**
Purchase	–	5, 000	
XY Co.	–		5,000
–	–		
–	–		
–	–		
–	–		
Total		5,000	5, 000

Let us move to the next important topic i.e. the different methods of preparing trial balance.

In general, trial balance can be prepared in any of the following methods–

- Total or Gross Trial Balance;
- Net or Balance Trial Balance.

Now we will discuss these three methods–

- Total or Gross Trial Balance: Under this method, the steps followed for the preparation of trial balance are stated below-
  - The amount columns of each ledger and the cash book is totalled up;
  - A list is prepared by placing the names of the ledgers along with two amount columns - one for debit amounts and the other for the credit amounts;
  - The debit total and the credit total of each ledger is put in the debit amount column and the credit amount column against the names of the accounts in the list;
  - The amount columns are added up separately to ascertain whether the columns agree or not.

This method is not generally followed in practice.

- Net or Balance Trial Balance: Under this method, the steps followed for the preparation of trial balance are as under-
  - Each ledger account and the cash book is balanced at the end of a certain period;
    - A list is prepared by inserting the names of the ledgers with two amount columns– one for debit amounts and the other for the credit amounts;
    - The amounts of the ledgers which have shown debit balances are put in the debit column of the list;
    - The amounts of the ledgers which have shown credit balances are put in the credit column of the list;

- The debit and the credit amount columns are added up to see whether the two columns show the same result.

This method is generally followed in the preparation of trial balance.

In this unit we will follow this method.

7.7 LIMITATIONS OF TRIAL BALANCE

In this section we will discuss the limitations of trial balance. We are aware that trial balance checks the arithmetical accuracy of journalising and ledger posting. If the debit and credit amount columns of trial balance do not agree, it indicates the presence of errors during the book- keeping process. However, trial balance suffers from certain limitations and thereby may not detect some errors.It means some errors may have been committed in the process of recording and posting the transactions but the trial balance is not capable to detect those errors. This limits the scope of trial balance.

Let us discuss these errors–

- Errors of Omission: Errors of omission are committed at the time of recording the transactions in the journal book or during the posting of entries in ledger. Error of omission may take place in the form of complete omission or partial omission. Let us go through the following example–

Purchase goods from Ram on credit for Rs. 5,000. The journal entry fro the transaction is given below–

Journal

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
	Purchase A/c Dr.		5,000	
	To Ram			5,000
	(Being goods purchased on credit)			

While recording the transaction, if the book-keeper does not record the transaction in the books at all, it is the error of complete omission. This type of error will not

affect the trial balance. On the other hand, if the book-keeper records only one aspect of the transaction, say, the Purchase aspect, then it is the error of partial omission.

- Errors of Commission: Error of commission may take place on account of incorrect posting, incorrect additions, wrong balancing of accounts etc. These types of errors affect the trial balance. However, wrong entry in original record and will not affect the trial balance. For example, if a credit sale of goods to Rakesh amounting to Rs. 2,000 is recorded in the books as Rs. 200 against Purchase account and Rakesh account, it will not affect the trial balance. Similarly, posting to wrong head of account will not affect the trial balance. Let us take the above example. If the book- keeper posted the above transaction to Purchase account and Rahim account instead of Rakesh Account, then the trial balance will not be able to detect that error. This error will increase the credit balance of Rahim but will trial balance will not be affected. This is because both Rakesh and Rahim are the creditors and their accounts appear on the credit side of the trial balance.

- Errors of Principle: This type of error occurs due to non-compliance of double entry principle in recording the transactions. Errors of principle will affect the financial statements but the trial balance will not be affected. For example, if the rent paid to the landlord is wrongly debited to landlord account instead of rent account, it is an error of principle but there will be no impact on trial balance.

- Compensating Errors: When an error or a series of errors are committed but they are compensated by another error or series of errors, they are called compensating errors. These errors do not affect the trial balance. Let us go through the following example-
  - Goods sold to Mr. X on credit for Rs. 1,000
  - Goods sold to Mr. Y on credit for Rs. 100.

Let us assume that Mr. X account is wrongly debited with Rs. 100 and Mr. Y's account is debited with Rs. 1,000.

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
	Mr. X Dr.		100	
	To Sales A/c			100
	(Being goods sold on credit)			
	Mr. Y Dr.		1,000	
	To Sales A/c			1,000
	(Being goods sold on credit)			

Thus, under debit of Rs. 900 in X account is compensated by over debit of Rs. 900 in Mr. Y's account. Sales account is credited with a total of Rs. 1,100. As Mr. X and Mr. Y's account will appear on the debit side and Sales account will appear on the credit side of the trial balance, therefore, trial balance will agree in spite of the error.

- Duplicating Errors: Duplicating error takes place when a transaction is recorded twice in the journal or posted twice in the ledger. For example, a credit sale of goods amounting to Rs. 500 to Mr. X, if recorded twice or posted twice in the ledgers, will not affect trial balance.

7.8 LET US SUM UP

In this unit we have discussed the following aspects–

- Trial balance contains the balances of ledge accounts;
- It ensures that no journal entry is left without posting it to the respective ledger and no ledger remains unbalanced;
- The different objects of trial balance like, testing of arithmetical accuracy, ensuring the recording of two aspects of a transaction, detecting the accounting errors, summarising financial transactions, facilitating the preparation of final accounts.
- The steps involved in the preparation of trial balance are–

- ➢ All the ledger accounts are closed at the end of an accounting period. The ledgers will show either debit or credit balance;
- ➢ The ledgers which show debit balances will be put on the debit side of the trial balance with the respective amounts. On the other hand, the ledgers which show credit balances will be put on the credit side of the trial balance with the respective amounts;
- ➢ The debit amount column and the credit amount column of the trial balance will be calculated;
- ➢ If both the columns show the same results, the trial balance is complete.

- The methods of preparation of trial balance like, total or gross trial balance and net or balance trial balance.
- The different types of errors which can not be detected by trial balance are– Errors of Omission; Errors of Commission; Errors in Principle; Compensating Errors; Duplicating Errors.

7.9 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

7.10CHECK YOUR PROGRESS

Q.1: What is trial balance? (Answer within 50 words)

Q.2: State any two objects of trial balance.

Q.3: Discuss the steps in the preparation of trial balance.

Q.4: Prepare a trial balance from the following information:

Ledger	Amount (Rs.)
Machinery	10,000
Building	20,000
Capital	50,000
Purchases	20,000
Sales	14,000
Salaries	5,000
Rent paid	5,000
Advertisement Expenses	4,000

Q.5: What are the different types of errors?

7.11 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1:

Trial balance is a statement which contains the ledge balances. It is prepared at the end of an accounting period. It ensures that no journal entry is left without posting it to the respective ledger and no ledger remains unbalanced. It checks the arithmetical accuracy of the ledger postings.

Ans. to Q. No. 2:

a) To Test Arithmetical Accuracy: The trial balance is prepared to test the arithmetical accuracy of the transactions entered in journal and posted in the ledger.

b) To Ensure Recording of Two Aspects: Preparation of trial balance ensures the fulfilment of the principles of double entry system while recording transactions i.e. both the aspects of the transactions (debit and credit) are recorded and posted.

Ans. to Q. No. 3:

The Steps in the Preparation of Trial Balance are–

- All the ledger accounts are closed at the end of an accounting period. The ledgers will show either debit or credit balance;
- The ledgers which show debit balances will be put on the debit side of the trial balance with the respective amounts. On the other hand, the ledgers which show credit balances will be put on the credit side of the trial balance with the respective amounts;
- The debit amount column and the credit amount column of the trial balance will be calculated;
- If both the columns show the same results, the trial balance is complete.

Ans. to Q. No. 4:

Trial Balance

Account Heads	L.F.	Debit (Rs.)	Credit (Rs.)
Machinery	–	10,000	
Building	–	20,000	
Capital	–		50,000
Purchase	–	20,000	
Sales	–		14,000
Salaries	–	5,000	
Rent Paid	–	5,000	
Advertisement Expenses	–	4,000	
Total		64,000	64,000

Ans. to Q. No. 5:

The different types of errors are– Errors of Omission; Errors of Commission; Errors in Principle; Compensating Errors; Duplicating Errors.

7.12 ASSIGNMENT

Q.1: What is trial balance?

Q.2: Discuss the steps involved in the preparation of trial balance.

Q.3: Discuss the objects of trial balance.

Q.4: Discuss the limitations of trial balance.

Q.5: What are the different types of errors that cannot be disclosed bytrial balance?

Q.6: Prepare trial balance from the following–

Ledger	Amount (Rs.)
Wages	5,000
Furniture	17,000
Cash in hand	5,000
Interest Received	1,000
Carriage Inward	500
Debtors	24,000
Discount Allowed	3,000
Sales	570,000
Discount Received	1,500
Bills Receivable	5,000

Unit 8: PREPARATION OF FINAL ACCOUNTS

8

Unit Structure

8.1 Learning Objectives

8.2 Introduction

8.3 Meaning of Final Accounts

8.4 Trading Account

8.5 Profit and Loss Account

8.6 Balance Sheet

8.7 Let Us Sum Up

8.8 Further Reading

8.9 Check your progress

8.10 Answers to Check Your Progress

8.11 Assignment

8.1 LEARNING OBJECTIVES

After going through this unit you will be able to:

- explain the meaning of Final Accounts
- explain the meaning of trading, profit and loss account and balance sheet
- prepare the trading, profit and loss account and balance sheet.

8.2 INTRODUCTION

In the earlier unit, we have discussed the preparation of trial balance. The preparation of trial balance facilitates the preparation of final accounts. In this unit we will discuss about trading account, profit and loss account and balance sheet which together are called final accounts. After going through the illustrations of this unit you will come to know the process of preparation of final accounts

8.3 MEANING OF FINAL ACCOUNTS

Preparation of Final Accounts is the final stage of accounting function in a business entity. After the trial balance and necessary rectification of errors or omissions in the recording stages, i.e. Journal and Ledgers are done, the Final Accounts are prepared. Generally, there are three constituents of Final Accounts—

1) Trading Account
2) Profit and Loss Account
3) Balance sheet.

In manufacturing organisations, before preparing Trading Account, Manufacturing Account is prepared. In case partnership firm and company organisations, Profit and Loss Appropriation Account is prepared after the preparation of Profit and Loss Account. Thus, in all, there are five constituents of final accounts. These are also known as **Financial Statements**. These statements serve different purposes:

- **Manufacturing Account shows** the cost of production and the proportional relationship among the items in it. This helps to control cost of production.

- **Trading Account shows** the Gross Profit earned and the cost of goods sold.
- **Profit and Loss Account shows** the net profit earned after covering administrative, selling and distribution expenditure.
- **Profit and Loss Appropriation Account** shows the amount of profit available to the owner or proprietor. From the net profit earned as per Profit and Loss account, some appropriation is made for General Reserve, Manager's commission etc. in it.
- **Balance Sheet** is the Financial Statement which shows the financial position of the business firm on the closing date of books of accounts.

Except Balance Sheet, all other statements are prepared with items of nominal accounts having two elements– expenses and incomes.. Balance Sheet has three elements– a) Assets, b) Capital and c) Liabilities These final accounts, i.e., financial statements are general purpose statements which are prepared keeping in view the general requirement of the users. These statement are used by the various interested groups, viz. management, creditors, debentureholders, bankers, shareholders or proprietor, Government, Researchers, Stock Exchange authorities etc. for various purposes.

8.4 TRADING ACCOUNT

Immediately after completion of trial balance, results of business transactions can not be known. This is why necessary final statements and accounts are prepared to ascertain– a) the profit or loss accruing from business operations and b) position of its assets and liabilities at the end of the financial year.

The first task is to prepare a **Trading account**. Trading account is prepared to measure the result of direct business operations by way of sale and purchase. Trading account shows gross profit or gross loss. Differences between sales and cost of goods sold is called gross profit or gross loss. While doing so, general distribution and administration expenses are not considered. When sales exceed cost of goods sold it results in gross profit and when cost of goods sold exceeds sales it results in gross loss. Specimen of Trading Account is given below:

Trading Account for the year ended
31st March … … … … 200…

Particulars	Rs.	Particulars	Rs.
To opening inventory			
To Purchase		By sales	
Less: Returns outward		Less: Returns inward	
To Carriage inward			
To Wages		By Closing inventory	
To Fuel			
To Gas and water			
To Freight			
To Power			
To Octroi duty			
To Excise duty			
To Import duty			
To Clearing Charges			
To Coal			
To Gross profit c/d			

8.5 PROFIT AND LOSS ACCOUNT

Profit and Loss Account is the second part of the final account. It shows the net profit earned or net loss sustained by the firm during a given period. All indirect expenses like administrative, selling and distribution are charged i.e. debited in this account.

Purpose of Profit and Loss Account:

1) The primary purpose of the Profit and Loss Account is to ascertain the net profit available to the proprietor.
2) Calculation of expense ratios to sales for judging the cost effectiveness and efficiency is another purpose of Profit and Loss Account.
3) Providing for reserve and provision is another purpose of Profit and Loss Account. Provision for Depreciation, Bad and doubtful debt, transfer to reserve fund etc. are done through Profit and Loss Account.
4) The ratio between Net Profit and Sales is one of the important profitability ratios calculated after preparing Profit and Loss Account.

Profit and Loss Account for the year ended

31st March … … … … 200...

Particulars	Rs.	Particulars	Rs.
To Gross Loss (Transferred fromTrading Account)		By Gross Profit (Transferred from Trading Account)	
To Salaries		By Interest received	
To Salaries and Wages.		By Discount received	
To Rent		By Rebate received	
To Rates and taxes		By Commission received	
To Stationary and Printing.		By Dividend received	
To Postage, Telegrams and Telephones		By Profit on Sale of assets	
To General expenses		By Interest on Drawings	
To Office expenses		By Rent, Royalty etc. received	
To Lighting and electricity		By Bad debts recovered	
To Insurance of office		By Provision for discount on creditors	
To Trading expenses		By Miscellaneous incomes	
To Repairs and Renewals		By Net Loss, if any	
To Travelling expenses.			
To Carriage Outward			
To Audit fee			
To Bad debts			
To Law charges, Legal fees			
To Provision for Doubtful and bad debt			
To Provision for Depreciation			

To Distribution expenses To Provision for discount on Debtors To Selling expenses To Commission Paid To Rebate and discount allowed To Interest paid To Bank charges To Publicity and advertisement expenses To Donation To Net profit c/d			

8.6 BALANCE SHEET

Balance Sheet is known as Position Statement as it reflects the financial position of the organisation as at a certain date, generally, accounts closing date. The various items of real account and personal account are taken from the trial balance, net profit (or net loss) figure is taken from Profit and Loss (P/L Appropriation) Account and adjustment entries/items from the additional information provided are taken to prepare Balance Sheet.

The real accounts represents assets and personal accounts represents liabilities and capital. Thus, Balance Sheet gives the picture of assets owned and liabilities owed by the firm and the proprietor’s or owner’s share or net worth which is the difference between assets and liabilities.

Marshalling of Balance Sheet: While presenting various assets and liabilities in the balance sheet of an entity we have to ascertain the order of presentation. Assets and liabilities for the purpose may be groupedinto categories, namely– a) in order of liquidity and b) in order of permanence. By and large, current assets and current

liabilities ought to be presented in order of liquidity. Current assets are held for converting into cash and cash equivalents within a period of one year. Likewise current liabilities are required to be repaid within one accounting year. Hence, they are influenced by the dictum of liquidity. Contrary to this, fixed assetsare used in the business for a long period of time for generating income and creating utility. Non-current liabilities are undertaken for use over a relatively longer period of time and are not required to be repaid within one accounting year. The presentation of items may be done as follows—

Order of Liquidity

Balance Sheet of ... ... as on ... ...

Liabilities	Assets
Current liabilities Creditors Bills payable Short-term Loans Outstanding Expenses Provision for taxation	**Current Assets** Cash Bank Balance Debtors Bills receivable Prepaid expense Closing Stock
Non-Current or Long-Term Liabilities Long-term Loans Retained earnings Debentures Capital	**Fixed Assets** Furniture and fixtures Patent Copyright Plant and machinery Land and Building Goodwill

Order of Permanence Balance Sheet of ... ... as on ... ...

Liabilities	Assets
Non-Current or Long-Term Capital Retained earnings Long-term Loans Debentures	**Fixed Assets** Goodwill Land and Building Plant and machinery Copyright Patent Furniture and fixtures

Current Liabilities	Current Assets
Creditors Bills Payable Short-term Loans Outstanding Expenses Provision for taxation	Closing Stock Prepaid expense Bills receivable Debtors Bank Balance Cash

Illustration 1:

Prepare Trading Account and Profit and Loss Accountfor the year ended 31.03.2015 and a Balance Sheet as on that date.

Trial Balance as on 31-03-15

Heads of Accounts	Debit Balance (Rs.)	Heads of Accounts	Credit Balance (Rs.)
Cash	46,700	Creditors	16,000
Furniture	11,000	Sales	86,000
Computer	42,000	Capital	50,000
Insurance	1,500	Commission received	1,000
Wages	2,000	Bank Loan	12,500
Carriages inward	500		
Purchases	36,000		
Debtors	12,000		
Drawings	12,000		
Salary	1,800		
	1,65,500		**1,65,500**

Closing Stock is valued at Rs. 5,000.

Note: The learners should ascertain the items that will be debited orcredited in the Trading account first, then in the P/L account and then in which side of the Balance Sheet those will be shown. The following list may be helpful to you for this exercise—

Accounts	Where willappear	To be Debited / Credited or To show in the Asset side / Liability side
Cash	Balance Sheet	Asset side
Furniture	Balance Sheet	Asset side
Computer	Balance Sheet	Asset side
Insurance	P/L A/c	To be Debited
Wages	Trading A/c	To be Debited
Carriages inward	Trading A/c	To be Debited
Purchase	Trading A/c	To be Debited
Debtors	Balance Sheet	Asset side
Drawings	Balance Sheet	Liability side
Salary	P/L A/c	To be Debited
Creditors	Balance Sheet	Liability side
Sales	Trading A/c	To be Credited
Capital	Balance Sheet	Liability side
Commission received	P/L A/c	To be Credited
Bank Loan	Balance Sheet	Liability side

- If closing stock appears only in trial balance, it is shown only on theasset side of the balance sheet.
- If closing stock appears in adjustment, firtst it is credited in tradingaccount and then it is shown on the asset side of the balance sheet.

Solution :

Trading Account of M/S ....

for the year ended 31-03-15

Dr. Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Purchases	**36,000**	By Sales	**86,000**
To Wages	**2,000**	By Closing Stock	**5,000**

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Carriage inward	**500**		
To Gross Profit Transferred to P/L A/C	**52,500**		
	91,000		**91,000**

Profit & Loss Account of M/S ....

for the year ended 31-12-15

Dr. **Cr.**

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Salary	**1,800**	By Gross Profit transferred from P/L A/c	**52,500**
To Insurance	**1,500**	By Commission received	**1,000**
To Net Profit Transferred to Capital Account	**50,200**		
	53,500		**53,500**

Balance Sheet of M/S................................as on 31-03-15

Liabilities		Amount (Rs.)	Assets	Amount (Rs.)
Capital	50,000		Cash	46,700
Add:			Furniture	11,000
Net Profit	50,200		Computer	42,000
1,00,200				
Less: Drawing	12,000	88,200	Debtors	12,000
Bank Loan		12,500	Closing Stock	5,000
Creditors		16,000		
		1,16,700		**1,16,700**

Illustration 2:

From the following trial balance of M/S ABC prepare– Trading and Profit and Loss Account for the year ended 31.03.2015and a Balance Sheet as on that date.

Trial Balance as on 31-03-15

Particulars	Debit Balance (Rs.)	Particulars	Credit Balance (Rs.)
Opening Stock	25,000	Creditors	40,000
Salaries	6,000	Sales	1,40,000
Insurance	400	Capital	25,000
Carriage Inward	1,700	Discount	100
Commission	4,400	Bills Payable	6,200
Stationery	2,300	Return outward	1,000
Purchases	75,000		
Return inward	3,200		
Rent & Taxes	2,000		
Bills Receivable	4,000		
Drawings	2,800		
Office Furniture	8,000		
Debtors	67,000		
Cash in hand	500		
Cash in Bank	10,000		
	2,12,300		**2,12,300**

Adjustments:

1) Closing Stock is valued at Rs. 30,000.
2) Prepaid Insurance Rs. 100
3) Office Furniture to be depreciated at 10%
4) Provision for doubtful debt to be provided at 2% on Debtors.
5) Salary outstanding Rs. 200

Solution:

Trading Account of M/S ABCfor the year ended 31-03-1

Dr. Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Opening Stock	25,000	By Sales: 1,40,000	
		Less: Returns 3,200	1,36,800
To Purchases: 75,000		By Closing Stock	30,000
Less, Returns: 1,000	74,000		
To Carriages inward	1,700		
To Gross Profit c/d	66,100		
	1,66,800		**1,66,800**

Profit and Loss Account of M/S ABCfor the year ended 31-03-15

Dr. **Cr.**

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Salary 6,000		To Gross Profit b/d	66,100
Add.: outstanding 200	6,200		
To Insurance 400		By Discount	100
Less: Prepaid 100	300		
To Commission	4,400		
To Stationery	2,300		
To Rent & Taxes	2,000		
To Depreciation on Furniture (10% on 8,000)	800		
To Provision for Doubtful debt (2% on 67,000)	1,340		
To Net Profit c/d (transfered to Capital)	48,860		
	66,200		**66,200**

Balance Sheet of M/s ABCas on 31-03-15

Dr. **Cr.**

Liabilities		Amount (Rs.)	Assets		Amount (Rs.)
Capital	25,000		Off. Furniture,	8,000	
Add:			Less: Dep:	800	7,200
Net Profit	48,860			67,000	
	73,860		Debtors		
			Less: Provision	1,340	65,660
Less: Drawing	2,800	71,060			
			Bills Receivable		4,000
			Closing Stock		30,000
Creditors		40,000	Pre-paid Insurance		100
Bills Payable		6,200	Cash at bank		10,000
Outstanding Salary		200	Cash		500
		1,17,460			**1,17,460**

Illustration 3:

From the following trial balance of M/S X and Yprepare–

Trading, Profit and Loss Account for the year ended 31.03.2015and a Balance Sheet as on that date.

Trial Balance as on 31-03-15

Particulars	Debit Balance (Rs.)	Particulars	Credit Balance (Rs.)
Opening Stock	50,000	Creditors	80,000
Salaries	12,000	Sales	2,80,000
Wages	2,500	Capital Return outward	2,000
Insurance	800	X : 30,000 Y : 20,000	50,000
Carriage Inward	3,400	Discount	200
Commission	8,800	Bank Loan	20,500

Particulars	Debit Balance (Rs.)	Particulars	Credit Balance (Rs.)
Stationery	4,600	Bills Payable	8,400
Return inward	6,400		
Purchases	1,50,000		
Rent & Taxes	4,000		
Bills Receivable	8,000		
Drawings	5,600		
X : 2,000 Y : 3,600			
Furniture	16,000		
Trade Expenses	4,500		
Debtors	60,000		
Cash in hand	1,000		
Cash at Bank	20,000		
Land & Building	83,500		
	4,41,100		**4,41,100**

Adjustments:

1) Closing Stock is valued at Rs. 30,000.
2) Prepaid rent Rs. 500
3) Furniture to be depreciated at 10%.
4) Provision for doubtful debt to be provided for Rs. 1,000 on Debtors.
5) Wages outstanding Rs. 5006.
6) Partners share profit in the ratio of 3 : 2.

Solution:

Trading and Profit & Loss A/c of M/s X and Y for the year ended 31-03-

Dr. Particulars		Amount (Rs.)	Particulars		Amount (Rs.) Cr.
To Opening Stock		50,000	By Sales	2,80,000	
			Less: Returns	6,400	2,73,600
To Purchases	1,50,000		By Closing Stock		30,000
Less: Returns	2,000	1,48,000			
To Wages	2,500				
Add:Outstading wages	500	3,000			
		3,400			
To Carriage Inward					
To Gross Profit c/d		99,200			
		3,03,600			**3,03,600**
To Salaries		12,000	By Gross Profit b/d		99,200
To Commission		8,800	Discount		200
To Stationery		4,600			
To Rent & Taxes	4,000				
Less: Prepaid	500	3,500			
To Trade Expenses		4,500			
To Insurance		800			
To Depreciation on Furniture (10% on 16,000)		1,600			
To Provision for Doubtful Debt		1,000			
To Net Profit c/d		62,600			
		99,400			99,400
To Capital A/c			By Net Profit c/d		62,600
X : 62,600 x 3/5		37,560			
Y : 62,600 x 2/5		25,040			
		62,600			**62,600**

Balance Sheet of M/s X and Yas on 31-03-15

Dr. **Cr.**

Liabilities		**Amount (Rs.)**	**Assets**		**Amount (Rs.)**
Capital			Land & Building		83,500
X :	30,000				
Add: Net Profit	37,560		Furniture	16,000	
	67,560		Less: dep :	1,600	14,400
Less: Drawing	2,000		Debtors	60,000	
		65,560	Less: Prov.	1,000	59,000
Y :	20,000		Closing Stock		30,000
Add: Net Profit	25,040				
	45,040		Cash in hand		1,000
Less: Drawing	3, 600				
		41,440	Cash at Bank		20,000
			Bills Receivable		8,000
			Prepaid rent		500
Creditors		80,000			
Bank Loan		20,500			
Bills Payable		8,400			
Wages outstanding		500			
		2,16,400			**2,16,400**

8.7 LET US SUM UP

In this unit we have discussed that–

- Final accounts consists of Trading account, Profit and Loss account and Balance Sheet.
- Trading account shows gross profit earned or gross loss suffered by a business firm during a particular period.
- Profit and loss account shows net profit earned or net loss suffered by a business firm during a particular period.
- Balance-Sheet contains Assets, Liabilities and Capital and shows financial position of an organisation at a certain date.

8.8 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

8.9 CHECK YOUR PROGRESS

Q.1: What is the purpose of preparing tradingaccount?

Q. 2: Explain any two purpose of profit and loss account.

8.10 ANSWERS TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: Trading account is prepared to measure the result of direct business operations by way of sale and purchase. It shows gross profit or gross loss.

Ans. to Q. No. 2: The primary purpose of the Profit and Loss Account is to ascertain the net profit available to the proprietor. Another purpose is calculation of expense ratios to sales for judging the cost effectiveness and efficiency.

8.11 ASSIGNMENT

Q.1 What is trading account?

Q.2: What is profit and loss account?

Q.3: What is balance sheet?

Unit 9: Cash and Receivables

9

Unit Structure

9.1 Learning Objectives

9.2 Internal control

9.3 Petty cash

9.4 Cash Collections and Payments

9.5 Accounts Receivable

9.6 Short-Term Notes Receivable

9.7 Appendix A: Ratio Analysis—Acid Test

9.8 Appendix B: Ratio Analysis—Accounts Receivable Turnover

9.9 Let Us Sum Up

9.10 Check your progress

9.11 Answer to Check Your Progress

9.12 Further Reading

9.13 Assignments

9.1 LEARNING OBJECTIVES

After studying this unit student should be able to:

- Define internal control and explain how it is applied to cash.
- Explain and journalize petty cash transactions.
- Explain the purpose of and prepare a bank reconciliation, and record related adjustments.
- Explain, calculate, and record estimated uncollectible accounts receivable and subsequent write-offs and recoveries.
- Explain and record a short-term notes receivable as well as calculate related interest.
- Explain and calculate the acid-test ratio.
- Explain and calculate the accounts receivable turnover.

9.2 Internal Control

Assets are the lifeblood of a company. As such, they must be protected. This duty falls to managers of a company. The policies and procedures implemented by management to protect assets are collectively referred to as **internal controls**. An effective internal control program not only protects assets, but also aids in accurate recordkeeping, produces financial statement information in a timely manner, ensures compliance with laws and regulations, and promotes efficient operations. Effective internal control procedures ensure that adequate records are maintained, transactions are authorized, duties among employees are divided between recordkeeping functions and control of assets, and employees' work is checked by others. The use of electronic recordkeeping systems does not decrease the needfor good internal controls.

The effectiveness of internal controls is limited by human error and fraud. Human error can occur because of negligence or mistakes. Fraud is the intentional decision to circumvent internal controlsystems for personal gain. Sometimes, employees cooperate in order to avoid internal controls. This *collusion* is often difficult to detect, but fortunately, it is not a common occurrence when adequate controls are in place.

Internal controls take many forms. Some are broadly based, like mandatory employee drug testing, video surveillance, and scrutiny of company email systems. Others are

specific to a particular type of asset or process. For instance, internal controls need to be applied to a company's accounting system to ensure that transactions are processed efficiently and correctly to produce reliable records in a timely manner. Procedures should be documented to promote good recordkeeping, and employees need to be trained in the application of internal control procedures.

Financial statements prepared according to generally accepted accounting principles are useful not only to external users in evaluating the financial performance and financial position of the company, but also for internal decision making. There are various internal control mechanisms that aid in the production of timely and useful financial information. For instance, using a chart of accounts is necessary to ensure transactions are recorded in the appropriate account. As an example, expenses are classified and recorded in applicable expense accounts, then summarized and evaluated against those of a prior year.

The design of accounting records and documents is another important means to provide financial information. Financial data is entered and summarized in records and transmitted by documents. A good system of internal control requires that these records and documents be prepared at the time a transaction takes place or as soon as possible afterward, since they become less credible and the possibility of error increases with the passage of time. The documents should also be consecutively pre-numbered, to indicate whether there may be missing documents.

Internal control also promotes the protection of assets. Cash is particularly vulnerable to misuse. A good system of internal control for cash should provide adequate procedures for protecting cash receipts and cash payments (commonly referred to as cash disbursements). Procedures to achieve control over cash vary from company to company and depend upon such variables as company size, number of employees, and cash sources. However, effective cash control generally requires the following:

- Separation of duties: People responsible for handling cash should not be responsible for maintaining cash records. By separating the custodial and record-keeping duties, theft of cash is less likely.
- Same-day deposits: All cash receipts should be deposited daily in the company's bank ac- count. This prevents theft and personal use of the money before deposit.

- Payments made using non-cash means: Cheques or electronic funds transfer (EFT) provide a separate external record to verify cash disbursements. For example, many businesses pay their employees using electronic funds transfer because it is more secure and efficient than using cash or even cheques.

Two forms of internal control over cash will be discussed in this chapter: the use of a petty cash account and the preparation of bank reconciliations.

9.3 Petty Cash

The payment of small amounts by cheque may be inconvenient and costly. For example, using cash to pay for postage on an incoming package might be less than the total processing cost of a cheque. A small amount of cash kept on hand to pay for small, infrequent expenses is referred to as a **petty cash fund**.

Establishing and Reimbursing the Petty Cash Fund

To set up the petty cash fund, a cheque is prepared for the amount of the fund. The custodian of the fund cashes the cheque and places the coins and currency in a locked box. Responsibility for the petty cash fund should be delegated to only one person, who should be held accountable for its contents. Cash payments are made by this petty cash custodian out of the fund as required when supported by receipts. When the amount of cash has been reduced to a pre-determined level, the receipts are compiled and submitted for entry into the accounting system. A cheque is then issued to reimburse the petty cash fund. At any given time, the petty cash amount should consist of cash and supporting receipts, all totalling the petty cash fund amount. To demonstrate the management of a petty cash fund, assume that a $200 cheque is issued for the purpose of establishing a petty cash fund.

The journal entry is:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Petty Cash		200	
	Cash			200
	To establish the $200 petty cash fund.			

Petty Cash is a current asset account. When reporting Cash on the financial

statements, the balances in Petty Cash and Cash are added together and reported as one amount.

Assume the petty cash custodian has receipts totalling $190 and $10 in coin and currency remaining in the petty cash box. The receipts consist of the following: delivery charges $100, $35 for postage, and office supplies of $55. The petty cash custodian submits the receipts to the accountant who records the following entry and issues a cheque for $190.

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Delivery Expense		100	
	Postage Expense		35	
	Office Supplies Expense[1]		55	
	Cash			190
	To reimburse the petty cash fund.			

The petty cash receipts should be cancelled at the time of reimbursement in order to prevent their reuse for duplicate reimbursements. The petty cash custodian cashes the $190 cheque. The $190 plus the $10 of coin and currency in the locked box immediately prior to reimbursement equals the $200 total required in the petty cash fund.

Sometimes, the receipts plus the coin and currency in the petty cash locked box do not equal the required petty cash balance. To demonstrate, assume the same information above except that the coin and currency remaining in the petty cash locked box was $8. This amount plus the receipts for $190 equals $198 and not $200, indicating a shortage in the petty cash box. The entry at the time of reimbursement reflects the shortage and is recorded as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Delivery Expense		100	
	Postage Expense		35	
	Office Supplies Expense		55	
	Cash Over/Short Expense		2	
	Cash			192
	To reimburse the petty cash fund and account for the $2.00 shortage.			

Notice that the $192 credit to Cash plus the $8 of coin and currency remaining in the petty cash box immediately prior to reimbursement equals the $200 required total in the petty cash fund.

Assume, instead, that the coin and currency in the petty cash locked box was $14. This amount plus the receipts for $190 equals $204 and not $200, indicating an overage in the petty cash box. The entry at the time of reimbursement reflects the overage and is recorded as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Delivery Expense		100	
	Postage Expense		35	
	Office Supplies Expense		55	
	Cash Over/Short Expense			4
	Cash			186
	To reimburse the petty cash fund and account for the $4.00 overage.			

Again, notice that the $186 credit to Cash plus the $14 of coin and currency remaining in the petty cash box immediately prior to reimbursement equals the $200 required total in the petty cash fund.

What happens if the petty cash custodian finds that the fund is rarely used? In such a case, the size of the fund should be decreased to reduce the risk of theft. To demonstrate, assume the petty cash custodian has receipts totalling $110 and $90 in coin and currency remaining in the

An expense is debited instead of Office Supplies, an asset, because the need to purchase supplies through petty cash assumes the immediate use of the items.

petty cash box. The receipts consist of the following: delivery charges $80 and postage $30. The petty cash custodian submits the receipts to the accountant and requests that the petty cash fund be reduced by $75. The following entry is recorded and a cheque for $35 is issued.

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Delivery Expense		80	
	Postage Expense		30	
	Petty Cash			75
	Cash			35
	To reimburse the petty cash fund and reduce it by $75.			

The $35 credit to Cash plus the $90 of coin and currency remaining in the petty cash box immediately prior to reimbursement equals the $125 new balance in the petty cash fund ($200 original balance less the $75 reduction).

In cases when the size of the petty cash fund is too small, the petty cash custodian could request an increase in the size of the petty cash fund at the time of reimbursement. Care should be taken to ensure that the size of the petty cash fund is not so large as to become a potential theft issue. Additionally, if a petty cash fund is too large, it may be an indicator that transactions that should be paid by cheque are not being processed in accordance with company policy. Remember that the purpose of the petty cash fund is to pay for infrequent expenses; day-to-day items should not go through petty cash.

9.4 Cash Collections and Payments

The widespread use of banks facilitates cash transactions between entities and provides a safeguard for the cash assets being exchanged. This involvement of banks as intermediaries between entities has accounting implications. At any point in time, the cash balance in the accounting records of a particular company usually differs from the bank cash balance of that company. The difference is usually because some cash transactions recorded in the accounting records have not yet been recorded by the bank and, conversely, some cash transactions recorded by the bank have not yet been recorded in the company's accounting records.

The use of a bank reconciliation is one method of internal control over cash. The reconciliation process brings into agreement the company's accounting records for cash and the **bank statement** issued by the company's bank. A bank reconciliation explains the difference between the balances reported by the company and by the bank on a given date.

A bank reconciliation proves the accuracy of both the company's and the bank's records, and reveals any errors made by either party. The bank reconciliation is a tool that can help detect at- tempts at theft and manipulation of records. The preparation of a bank reconciliation is discussed in the following section.

The Bank Reconciliation

The bank reconciliation is a report prepared by a company at a point in time. It identifies discrepancies between the cash balance reported on the bank statement and the cash balance reported in a business's Cash account in the general ledger, more commonly referred to as the *books*. These discrepancies are known as *reconciling items* and are added or subtracted to either the book balance or bank balance of cash. Each of the reconciling items is added or subtracted to the business's cash balance. The business's cash balance will change as a result of the reconciling items. The cash balance prior to reconciliation is called the *unreconciled* cash balance. The balance after adding and subtracting the reconciling items is called the *reconciled* cash balance. The following is a list of potential reconciling items and their impact on the bank reconciliation.

Book reconciling items	*Bank reconciling items*
Collection of notes receivable (added)	Outstanding deposits (added)
NSF cheques (subtracted)	Outstanding cheques (subtracted)
Bank charges (subtracted)	
Book errors (added or subtracted, depending on the nature of the error)	Bank errors (added or subtracted, depending on the nature of the error)

Book Reconciling Items

The collection of notes receivable may be made by a bank on behalf of the company. These collections are often unknown to the company until they appear as an addition on the bank statement, and so cause the general ledger cash account to be understated. As a result, the collection of a notes receivable is added to the unreconciled book balance of cash on the bank reconciliation.

Cheques returned to the bank because there were not sufficient funds (NSF) to cover them appear on the bank statement as a reduction of cash. The company must then request that the customer pay the amount again. As a result, the general ledger cash account is overstated by the amount of the NSF cheque. NSF cheques must therefore be subtracted from the unreconciled book balance of cash on the bank reconciliation to reconcile cash.

Cheques received by a company and deposited into its bank account may be returned by the customer's bank for a number of reasons (e.g., the cheque was issued too long ago, known as a stale- dated cheque, an unsigned or illegible cheque, or the cheque shows the wrong account number). Returned cheques cause the general ledger cash account to be overstated. These cheques are therefore subtracted on the bank statement, and must be deducted from the unreconciled book balance of cash on the bank reconciliation.

Bank service charges are deducted from the customer's bank account. Since the service charges have not yet been recorded by the company, the general ledger cash account is overstated. There- fore, service charges are subtracted from the unreconciled book balance of cash on the bank reconciliation.

A business may incorrectly record journal entries involving cash. For instance, a deposit or cheque may be recorded for the wrong amount in the company records. These errors are often detected when amounts recorded by the company are compared to the bank statement. Depending on the nature of the error, it will be either added to or subtracted from the unreconciled book balance of cash on the bank reconciliation. For example, if the company recorded a cheque as $520 when the correct amount of the cheque was $250, the $270 difference would be added to the unreconciled book balance of cash on the bank reconciliation. Why? Because the cash balance reported on the books is understated by $270 as a result of the error. As another example, if the company recorded a deposit as $520 when the correct amount of the deposit was $250, the $270 difference would be subtracted from the unreconciled book balance of cash on the bank reconciliation. Why? Because the cash balance reported on the books is overstated by $270 as a result of the error. Each error requires careful analysis to determine whether it will be added or subtracted in the unreconciled book balance of cash on the bank reconciliation.

Bank Reconciling Items

Cash receipts are recorded as an increase of cash in the company's accounting records when they are received. These cash receipts are deposited by the company into its bank. The bank records an increase in cash only when these amounts are actually deposited with the bank. Since not all cash receipts recorded by the company will have been recorded by the bank when the bank statement is prepared, there will be outstanding deposits, also known as **deposits in transit**. Outstanding deposits cause the bank statement cash balance to be understated. Therefore, outstanding de- posits are a reconciling item that must be added to the unreconciled bank balance of cash on the bank reconciliation.

On the date that a cheque is prepared by a company, it is recorded as a reduction of cash in a company's books. A bank statement will not record a cash reduction until a cheque is presented and accepted for payment (or *clears* the bank). Cheques that are recorded in the company's books but are not paid out of its bank account when the bank statement is prepared are referred to as **outstanding cheques**. Outstanding cheques mean that the bank statement cash balance is overstated. Therefore, outstanding cheques are a reconciling item that must be subtracted from the unreconciled bank balance of cash on the bank reconciliation.

Bank errors sometimes occur and are not revealed until the transactions on the bank

statement are compared to the company's accounting records. When an error is identified, the company notifies the bank to have it corrected. Depending on the nature of the error, it is either added to or subtracted from the unreconciled bank balance of cash on the bank reconciliation. For example, if the bank cleared a cheque as $520 that was correctly written for $250, the $270 difference would be added to the unreconciled bank balance of cash on the bank reconciliation. Why? Because the cash balance reported on the bank statement is understated by $270 as a result of this error. As another example, if the bank recorded a deposit as $520 when the correct amount was actually
$250, the $270 difference would be subtracted from the unreconciled bank balance of cash on the bank reconciliation. Why? Because the cash balance reported on the bank statement is overstated by $270 as a result of this specific error. Each error must be carefully analyzed to determine how it will be treated on the bank reconciliation.

Illustrative Problem—Bank Reconciliation

Assume that a bank reconciliation is prepared by Big Dog Carworks Corp. (BDCC) at April 30. At this date, the Cash account in the general ledger shows a balance of $21,929 and includes the cash receipts and payments shown in Figure 7.1.

Cash — Acct. No. 101

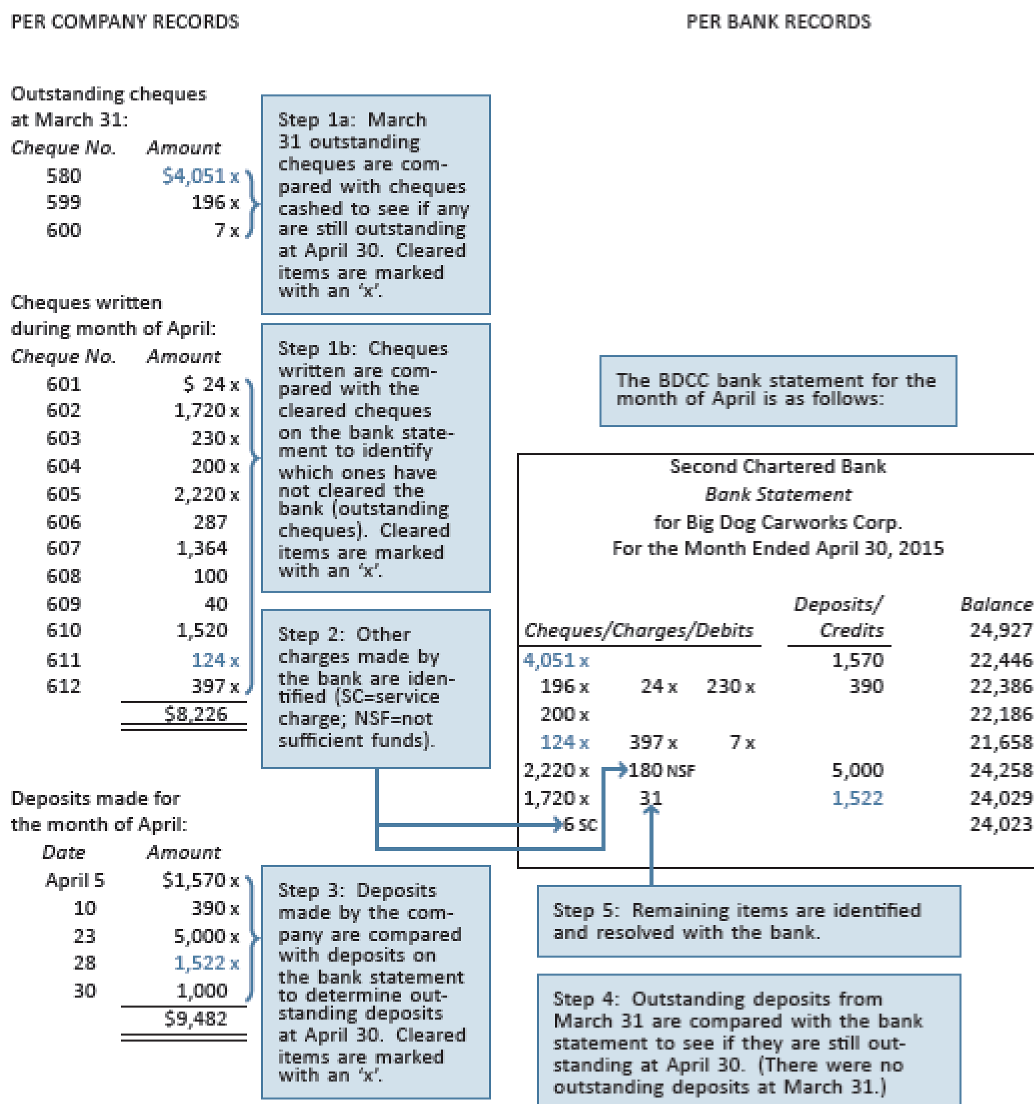
Date		Description	Debit	Credit	DR/CR	Balance
2015						
Mar.	31	Balance			DR	20673 -
Apr.	30	April cash receipts	9482 -		DR	30155 -
	30	April cash payments		8226 -	DR	21929 -

Remember, 'DR' (debit) denotes a positive cash balance in the far right-hand column of the general ledger.

Figure 9.1: Big Dog's General Ledger 'Cash' Account at April 30

Extracts from BDCC's accounting records are reproduced with the bank statement for April in Fig-ure 7.2.

Figure 9.2: The Bank Reconciliation Process



For each entry in BDCC's general ledger Cash account, there should be a matching entry on its bank statement. Items in the general ledger Cash account but not on the bank statement must be reported as a reconciling item on the bank reconciliation. For each entry on the bank statement, there should be a matching entry in BDCC's general ledger Cash account. Items on the bank statement but not in the general ledger Cash account must be reported as a reconciling item on the bank reconciliation.

There are nine steps to follow in preparing a bank reconciliation for BDCC at April 30, 2015:

Step 1

Identify the ending general ledger cash balance ($21,929 from Figure 7.1) and list

it on the bank reconciliation as the book balance on April 30 as shown in Figure 7.3. This represents the unrec-onciled book balance.

Step 2

Identify the ending cash balance on the bank statement ($24,023 from Figure 7.2) and list it on the bank reconciliation as the bank statement balance on April 30 as shown in Figure 7.3. This represents the unreconciled bank balance.

Step 3

Cheques written that have cleared the bank are returned with the bank statement. These cheques are said to be *cancelled* because, once cleared, the bank marks them to prevent them from being used again. Cancelled cheques are compared to the company's list of cash payments. Outstanding cheques are identified using two steps:

a. Any outstanding cheques listed on the BDCC's March 31 bank reconciliation are compared to the cheques listed on the April 30 bank statement.

   For BDCC, all of the March outstanding cheques (nos. 580, 599, and 600) were paid by the bank in April. Therefore, there are no reconciling items to include in the April 30 bank rec- onciliation. If one of the March outstanding cheques had not been paid by the bank in April, it would be subtracted as an outstanding cheque from the unreconciled bank balance on the bank reconciliation.

b. The cash payments listed in BDCC's accounting records are compared to the cheques on the bank statement. This comparison indicates that the following cheques are outstanding.

Cheque No.	*Amount*
606	$ 287
607	1,364
608	100
609	40
610	1,520

Outstanding cheques must be deducted from the bank statement's unreconciled ending cashbalance of $24,023 as shown in Figure 7.3.

Step 4

Other payments made by the bank are identified on the bank statement and subtracted from theunreconciled book balance on the bank reconciliation.

a. An examination of the April bank statement shows that the bank had deducted the NSF cheque of John Donne for $180. This is deducted from the unreconciled book balance on the bank reconciliation as shown in Figure 9.3.

b. An examination of the April 30 bank statement shows that the bank had also deducted a service charge of $6 during April. This amount is deducted from the unreconciled book balance on thebank reconciliation as shown in Figure 9.3.

Step 5

Last month's bank reconciliation is reviewed for outstanding deposits at March 31. There were no outstanding deposits at March 31. If there had been, the amount would have been added to the unreconciled bank balance on the bank reconciliation.

Step 6

The deposits shown on the bank statement are compared with the amounts recorded in the com- pany records. This comparison indicates that the April 30 cash receipt amounting to $1,000 was deposited but it is not included in the bank statement. The outstanding deposit is added to the unreconciled bank balance on the bank reconciliation as shown in Figure 9.3.

Step 7

Any errors in the company's records or in the bank statement must be identified and reported on the bank reconciliation.

An examination of the April bank statement shows that the bank deducted a cheque issued by another company for $31 from the BDCC bank account in error. Assume that when notified, thebank indicated it would make a correction in May's bank statement.

The cheque deducted in error must be added to the bank statement balance on the bank recon-ciliation as shown in Figure 9.3.

Step 8

Total both sides of the bank reconciliation. The result must be that the book balance and the bank statement balance are equal or reconciled. These balances represent the adjusted balance.

The bank reconciliation in Figure 9.3 is the result of completing the preceding eight steps.

Big Dog Carworks Corp.
Bank Reconciliation
At April 30, 2015

Book balance at Apr. 30		$21,929	Bank statement balance at Apr. 30			$24,023
			Add: Outstanding deposit			1,000
			Cheque deducted in error			31
						25,054
Less: Bank charges	$ 6		Less: Outstanding cheques			
NSF Cheque – J. Donne	180	186		*Cheque No.*	*Amount*	
				606	$ 287	
				607	1,364	
				608	100	
				609	40	
				610	1,520	3,311
Adjusted book balance at Apr. 30		$21,743	Adjusted bank balance at Apr. 30			$21,743

These balances must agree.

Reconciling items in this section require journal entries to be made in the general journal to correct the unreconciled Cash balance of $21,929 in the general ledger to the reconciled balance of $21,743.

Reconciling items in this section do not require journal entries because the out-standing deposits and cheques should clear the bank next month, in May. Addi-tionally, the other reconciling items (e.g., the $31 cheque deducted in error) must be reported to the bank so it can make the necessary corrections to Big Dog's ac-count in the next month.

Figure 9.3: BDCC's April Bank Reconciliation

Step 9

For the adjusted balance calculated in the bank reconciliation to appear in the accounting records, an adjusting entry(s) must be prepared. The adjusting entry(s) is based on the reconciling item(s) used to calculate the adjusted book balance.

The book balance side of BDCC's April 30 bank reconciliation is copied to the le□ below to

clarify the source of the following April 30 adjustments.

Book balance at Apr. 30		$21,929
Less: Bank charges	$ 6	
NSF Cheque – J. Donne	180	186
Adjusted book balance at Apr. 30		$21,743

Bank Service Charges Expense	6	
Cash.		6
To record service charges from April 30 bank reconciliation.		
Accounts Receivable – J. Donne	180	
Cash.		180
To record NSF cheque from April 30 bank reconciliation.		

It is common practice to use one compound entry to record the adjustments resulting from a bank reconciliation as shown below for BDCC.

Once the adjustment is posted, the Cash general ledger account is up to date, as illustrated in Figure 9.4.

Bank Service Charges Expense	6	
Accounts Receivable – J. Donne	180	
Cash.		186
To record reconciling items from April 30 bank reconciliation.		

Cash — Acct. No. 101

Date 2015		Description	Debit	Credit	DR/CR	Balance
Mar.	31	Balance			DR	20673-
Apr.	30	April cash receipts	9482-		DR	30155-
	30	April cash payments		8226-	DR	21929-
	30	Bank charge expense		6-	DR	21923-
	30	NSF cheque		180-	DR	21743-

This adjusted cash balance now agrees with the bank reconciliation.

Figure 9.4: Updated Cash Account in the General Ledger

Note that the balance of $21,743 in the general ledger Cash account is the same as the adjusted book balance of $21,743 on the bank reconciliation. Big Dog does not make any adjusting entries for the reconciling items on the bank side of the bank reconciliation since these will eventually clear the bank and appear on a later bank statement. Bank errors will be corrected by the bank.

Debit and Credit Card Transactions

Debit and credit cards are commonly accepted by companies when customers make purchases. Because the cash is efficiently and safely transferred directly into a company's bank account by the debit or credit card company, such transactions enhance internal control over cash. However, the seller is typically charged a fee for accepting debit and credit cards. For example, assume BDCC makes a $1,000 sale to a customer who uses a credit card that charges BDCC a fee of 2%; the cost of the sale is $750. BDCC would record:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Cash		980	
	Credit Card Expense		20	
	Sales			1,000
	To record sale and related credit card fee. Cost of		750	
	Goods Sold			750
	Merchandise Inventory			
	To record cost of sales.			

The credit card fee is calculated as the $1,000 sale × 2% = $20. This means that BDCC collects net cash proceeds of $980 ($1,000 − $20). The use of debit cards also involves fees and these would be journalized in the same manner.

9.5 Accounts Receivable

Recall from Chapter 5 that the revenue portion of the operating cycle, as copied in Figure 7.5, begins with a sale on credit and is completed with the collection of cash. Unfortunately, not all receivables are collected. This section discusses issues related to accounts receivable and their collection.

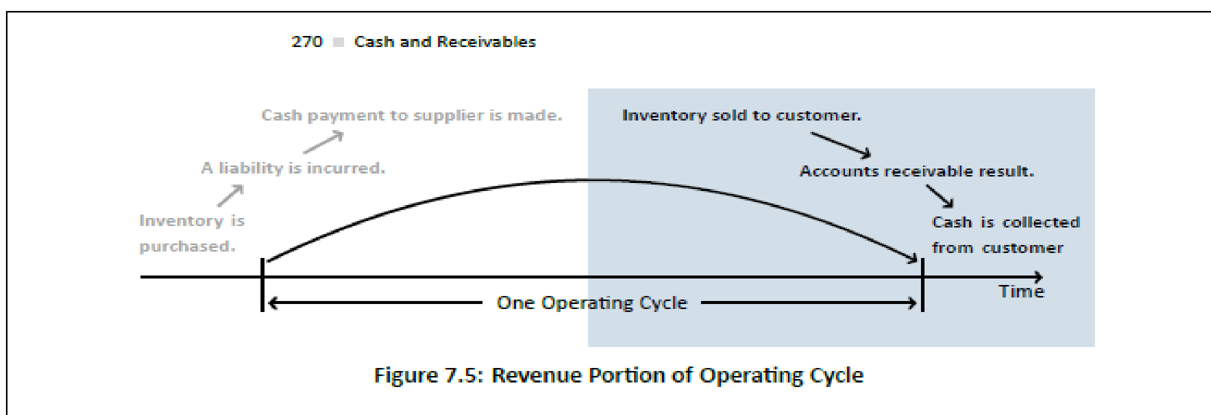


Figure 7.5: Revenue Portion of Operating Cycle

Uncollectible Accounts Receivable

Extending credit to customers results in increased sales and therefore profits. However, there is a risk that some accounts receivable will not be collected. A good internal control system is designed to minimize bad debt losses. One such control is to permit sales on account only to credit-worthy customers; this can be difficult to determine in advance. Companies with credit sales realize that some of these amounts may never be collected. **Uncollectible accounts**, commonly known as **bad debts**, are an expense associated with selling on credit.

Bad debt expenses must be matched to the credit sales of the same period. For example, assume BDCC recorded a $1,000 credit sale to XYA Company in April, 2015. Assume further that in 2016 it was determined that the $1,000 receivable from XYA Company would never be collected. The bad debt arising from the credit sale to XYA Company should be matched to the period in which the sale occurred, namely, April, 2015. But how can that be done if it is not known which receivables will become uncollectible? A means of estimating and recording the amount of sales that will not be collected in cash is needed. This is done by establishing a contra current asset account called **Allowance for Doubtful Accounts (AFDA)** in the general ledger to record estimated uncollectible receivables. This account is a contra account to accounts receivable and is disclosed on the balance sheet as shown below using assumed values.

Accounts receivable	$25,000	
Less: Allowance for doubtful accounts	1,400	23,600

OR

Accounts receivable (net of $1,400 AFDA)	$ 23,600

The Allowance for Doubtful Accounts contra account reduces accounts receivable to the amount that is expected to be collected — in this case, $23,600

Estimating Uncollectible Accounts Receivable

The AFDA account is used to reflect how much of the total Accounts Receivable is estimated to be uncollectible. To record estimated uncollectible accounts, the following adjusting entry is made.

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Bad Debts Expense		XXX	
	Allowance for Doubtful Accounts			XXX
	To record the adjustment estimating un-collectible accounts receivable.			

The bad debt expense is shown on the income statement. AFDA appears on the balance sheet and is subtracted from accounts receivable resulting in the estimated net realizable accounts receivable.

Two different methods can be used to estimate uncollectible accounts. One method focuses on estimating Bad Debt Expense on the income statement, while the other focuses on estimating the desired balance in AFDA on the balance sheet.

The Income Statement Method

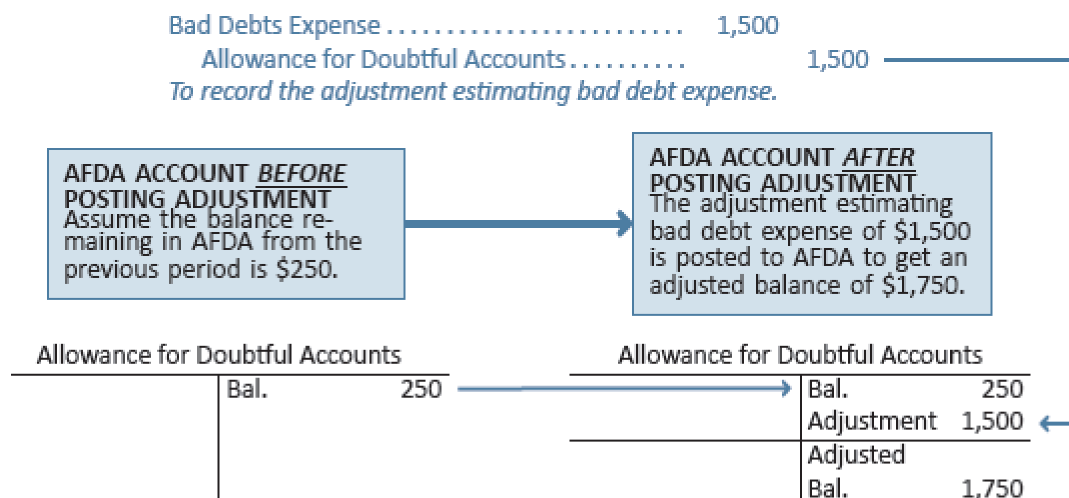
The objective of the **income statement method** is to estimate bad debt expense

based on credit sales. Bad debt expense is calculated by applying an estimated loss percentage to credit sales for the period. The percentage is typically based on actual losses experienced in prior years. For instance, a company may have the following history of uncollected sales on account:

Year	***Credit Sales***	***Amounts Not Collected***
2012	$150,000	$1,000
2013	200,000	1,200
2014	250,000	800
	$600,000	$3,000

The average loss over these years is $3,000/$600,000 , or 1/2 of 1%. If management anticipates that similar losses can be expected in 2015 and credit sales for 2015 amount to $300,000, bad debts expense would be estimated as $1,500 ($300,000 x 0.005). Under the income statement method, the $1,500 represents estimated bad debt expense and is recorded as:

This estimated bad debt expense is calculated without considering any existing balance in the AFDA account.



The Balance Sheet Method

Estimated uncollectible accounts can also be calculated by using the **balance sheet method** where a process called **aging of accounts receivable** is used. At the end of the period, the total of estimated uncollectible accounts is calculated by analyzing accounts receivable according to how long each account has been outstanding. An aging analysis approach assumes that the longer a receivable is outstanding, the less chance there is of collecting it. This process is illustrated in thefollowing schedule.

Aging of Accounts Receivable

December 31, 2015

			Number of Days Past Due				
Customer	*Total*	*Not Yet Due*	*1–30*	*31–60*	*61–90*	*91–120*	*Over 120*
Bendix Inc.	$ 1,000						$ 1,000
Devco Marketing Inc.	6,000		$ 1,000	$3,000	$2,000		
Horngren Corp	4,000		2,000	1,000		$ 1,000	
Perry Co. Ltd.	5,000		3,000	1,000		1,000	
Others	9,000		4,000			5,000	
Totals	$25,000	$ 0	$10,000	$5,000	$2,000	$ 7,000	$ 1,000

In this example, accounts receivable total $25,000 at the end of the period. These are classified into six time periods: those receivables that are not yet due; 1–30 days past due; 31–60 days past due; 61–90 days past due; 91–120 days past due; andover 120 days past due.

Based on past experience, assume management estimates a bad debt percentage, or rate of un-collectibility, for each time period as follows:

Number of Days Outstanding	***Not Yet Due***	***1–30***	***31–60***	***61–90***	***91–120***	***Over 120***
Rate of Uncollectibility	0.5%	1%	3%	5%	10%	40%

The calculation of expected uncollectible accounts receivable at December 31, 2015 would be asfollows:

Calculation of Uncollectible Amounts
December 31, 2015

Age (days)	*Accounts Receivable*	*Estimated Bad Debt Percentage*	*Estimated Uncollectible Amount*
1–30	$10,000	1%	$ 100
31–60	5,000	3%	150
61–90	2,000	5%	100
91–120	7,000	10%	700
Over 120	1,000	40%	400
Totals	$25,000		$1,450

The balance remaining in the account is $250 from the previous period.

The total estimated uncollectible receivables is $1,450.

Allowance for Doubtful Accounts

	Bal. 250

Allowance for Doubtful Accounts

	Bal. 250
	Bal. 1,450

A total of $1,450 of accounts receivable is estimated to be uncollectible at December 31, 2015.

Under the balance sheet method, the estimated bad debt expense consists of

the *difference* be- tween the opening AFDA balance ($250, as in the prior example) and the estimated uncollectible receivables ($1,450) required at year-end.

$1,200 must be recorded to bring the account to $1,450.

Allowance for Doubtful Accounts	
	Bal. 250
	1,200
	Bal. 1,450

$1,200 is the difference be- tween the $250 unadjusted bal- ance and the required $1,450 closing balance.

The adjustment is recorded by the following journal entry:

Bad Debts Expense	1,200	
Allowance for Doubtful Accounts		1,200
To record the adjustment estimating bad debt expense.		

As an alternative to using an aging analysis to estimate uncollectible accounts, a simplified balance sheet method can be used. The **simplified balance sheet method** calculates the total estimated uncollectible accounts as a percentage of the outstanding accounts receivables balance. For ex- ample, assume an unadjusted balance in AFDA of $250 as in the preceding example. Also assume the accounts receivable balance at the end of the period was $25,000 as in the previous illustration. If it was estimated that 6% of these would be uncollectible based on historical data, the adjustment would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Bad Debts Expense		1,250	
	Allowance for Doubtful Accounts			1,250
	To record the adjustment estimating bad debt expense.			

The total estimated uncollectible accounts was $1,500 ($25,000 0.06). Given an unadjusted balance in AFDA of $250, the adjustment to AFDA must be a credit of $1,250 ($1,500 – $250).

Regardless of whether the income statement method or balance sheet method is used, the amount estimated as an allowance for doubtful accounts seldom agrees

with the amounts that actually prove uncollectible. A credit balance remains in the allowance account if fewer bad debts occur during the year than are estimated. There is a debit balance in the allowance account if more bad debts occur during the year than are estimated. By monitoring the balance in the Allowance for Doubtful Accounts general ledger account at each year-end, though, management can deter- mine whether the estimates of uncollectible amounts are accurate. If not, they can adjust these estimates going forward.

Writing Off Accounts Receivable

When recording the adjusting entry to estimate uncollectible accounts receivable at the end of the period, it is not known which specific receivables will become uncollectible. When an account is determined to be uncollectible, it must be removed from the accounts receivable account. This process is known as a write-off. To demonstrate the write-off of an account receivable, assume that on January 15, 2016 the $1,000 credit account for customer Bendix Inc. is identified as uncollectible because of the company's bankruptcy. The receivable is removed by:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	AFDA		1,000	
	Accounts Receivable – Bendix Inc.			1,000
	To record write-off of Bendix Inc.'s account receivable.			

The $1,000 write-off reduces both the accounts receivable and AFDA accounts. The write-off does not affect net realizable accounts receivable as demonstrated below.

	Before Write-Off	*Write-Off*	*After Write-Off*
Accounts receivable	$25,000	Cr 1,000	$24,000
Less: Allowance for doubtful accounts	1,450	Dr 1,000	450
Net accounts receivable	$23,550		$23,550

Additionally, a write-off does not affect bad debt expense. This can be a challenge to understand. To help clarify, recall that the adjusting entry to estimate uncollectibles was:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Bad Debts Expense		XXX	
	AFDA			XXX
	To record the adjustment estimating bad debt expense.			

This adjustment was recorded because GAAP requires that the bad debt expense be matched to the period in which the sales occurred even though it is not known which receivables will become uncollectible. Later, when an uncollectible receivable is identified, it is written off as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	AFDA		XXX	
	Accounts Receivable			XXX
	To record write-off of account receivable.			

Notice that the AFDA entries cancel each other out so that the net effect is a debit to bad debt expense and a credit to accounts receivable. The use of the AFDA contra account allows us to estimate uncollectible accounts in one period and record the write-off of bad receivables as theybecome known in a later period.

Recovery of a Write-Off

When Bendix Inc. went bankrupt, its debt to Big Dog Carworks Corp. was written off in anticipation that there would be no recovery of the amount owed. Assume that later, an announcement wasmade that 25% of amounts owed by Bendix would be paid. This new information indicates that BDCC will be able to recover a portion of the receivable previously written off. A recovery requirestwo journal entries. The first entry reinstates the amount *expected* to be collected by BDCC—$250

($1,000 × 25%) in this case and is recorded as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit

	Accounts Receivable – Bendix Inc.		250	
	AFDA			250
	To reverse write-off and reinstate collectible portion of account.			

This entry reverses the collectible part of the receivable previously written off. The effect of the reversal is shown below.

Accounts Receivable

Debit		Credit	
Bal.	$25,000		
		Write-off	1,000
Recovery	250		

Allowance for Doubtful Accounts

Debit		Credit	
		Bal.	1,450
Write-off	1,000		
		Recovery	250

The second entry records the collection of the reinstated amount as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Cash		250	
	Accounts Receivable – Bendix Inc.			250
	To record recovery of collectible portion of account previously written off.			

The various journal entries related to accounts receivable are summarized below.

Transaction	Account	Debit	Credit
Sale on account.	Accounts Receivable	XXX	
	Sales		XXX
	COGS...........................	XXX	
	Merchandise Inventory........		XXX
Adjusting entry estimating uncollectible accounts.	Bad Debts Expense	XXX	
	AFDA		XXX
Write-off of uncollectible account.	AFDA...........................	XXX	
	Accounts Receivable		XXX
Recovery of account previously written off.	Accounts Receivable	XXX	
	AFDA		XXX
	Cash	XXX	
	Accounts Receivable		XXX

9.6 Short-Term Notes Receivable

Short-term notes receivable are current assets, since they are due within the greater of 12 months or the business's operating cycle. A note receiv- able is a *promissory note*. A **promissory note** is a signed document where the **debtor**, the person who owes the money, promises to pay the *creditor* the *principal* and *interest* on the *due date*. The **principal** is the amount owed. The **creditor**, or **payee**, is the entity owed the principal and inter- est. **Interest** is the fee for using the principal and is calculated as: Principal Annual Interest Rate Time. The **time** or **term** of the note is the period from the *date of the note* to the due date. The **due date**, also known as the **maturity date**, is the date on which the principal and interest must be paid. The **date of the note** is the date the note begins accruing interest.

Short-term notes receivable can arise at the time of sale or when a customer's account receiv- able becomes overdue. To demonstrate the conversion of a customer's account to a short-term receivable, assume that BDCC's customer Bendix Inc. is unable to pay its $5,000 account within the normal 30-day period. The receivable is converted to a 5%, 60-day note dated December 5, 2015 with the following entry:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Dec 5	Notes Receivable - Bendix.		5,000	
	Accounts Receivable - Bendix			5,000
	To record the conversion of a customer's account to a 5%, 60-day note dated December 5, 2015.			

The note is due on February 3, 2016 calculated as:

Days in December	31
Less: December 5 date of the note	5
Subtotal number of days	26
Add: Days in January	31
Subtotal number of days	57
Add: Days in February to total 60 days	**3**
Total term of the note in days	60

Assuming a December 31, year-end for BDCC, the adjusting entry to accrue interest on December31 would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Dec 31	Interest Receivable		17.81	
	Interest Revenue			17.81
	To record the accrual of interest from December 5 to December 31.			

The interest of $17.81 was calculated as: $5,000 X 5% X 26/365[2] = $17.80822

rounded to $17.81.

All interest calculations in this textbook are rounded to two decimal places.

At maturity, February 3, 2016, BDCC collects the note plus interest and records:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Feb 3	Cash		5,041.10	
	Note Receivable - Bendix			5,000.00
	Interest Receivable			17.81
	Interest Revenue			23.29
	To record the collection of the principal and interest.			

The total interest realized on the note was $41.10 ($5,000 × 5% × 60/365 = $41.0959 rounded to $41.10). Part of the $41.10 total interest revenue was realized in 2015 ($17.81) and the rest in 2016 ($41.10 - $17.81 = $23.29). Therefore, care must be taken to correctly allocate the interest between periods. The total cash received by BDCC on February 3 was the sum of the principal and interest: $5,000.00 + $41.10 = $5,041.10.

When the term of a note is expressed in months, the calculations are less complex. For example, assume that BDCC sold customer Woodlow a $4,000 service on August 1, 2015. On that date, the customer signed a 4%, 3-month note. The term of the note is based on months and not days therefore the maturity date is October 31, 2015. BDCC would record the collection on October 31 as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Oct 31	Cash		4,040	
	Note Receivable - Woodlow			4,000
	Interest Revenue			40
	To record the collection of the principal and interest.			

The total interest realized on the note was $40 ($4,000 × 4% × 3/12[3] = $40.00)

9.7 Appendix A: Ratio Analysis—Acid Test

The **acid-test ratio**, also known as the **quick ratio**, is a liquidity ratio that is a strict measure of a business's availability of cash to pay current liabilities as they come due. It is considered a strict measure because it includes only *quick current assets*. **Quick current assets** are those current assets that are one step away from becoming cash. For example, accounts receivable are a quick current asset because collection of receivables results in cash. However, inventory is not a quick current asset because it is two steps from cash — it has to be sold which creates an account receivable and the receivable then has to be collected. Prepaids are not a quick current asset because the intent in holding prepaids is not to convert them into cash but, instead, to use them (e.g., prepaid insurance becomes insurance expense as it is used). Quick current assets include only cash, short-term investments, and receivables.

The acid-test ratio is calculated as:

Quick current assets ÷ Current liabilities

The acid-test ratios for three companies operating in a similar industry are shown below:

	Acid-Test Ratios		
Year	**Company A**	**Company B**	**Company C**
2014	0.56	1.3	8.6
2015	0.72	1.2	8.7

In 2014, Company A's acid-test ratio shows that it has only \$0.56 to cover each \$1.00 of current liabilities as they come due. Company A therefore has a liquidity issue. Although Company A's acid- test ratio is still unfavourable in 2015, the change is favourable because the liquidity improved. So a company can have an unfavourable acid-test ratio but show a favourable change.

Company B's 2014 acid-test shows that it has favourable liquidity: $1.30 to cover each $1.00 of current liabilities as they come due. However, the change from 2014 to 2015 shows a decrease in the acid-test ratio which is unfavourable although Company B's acid-test still shows favourable liquidity. So a company can have a favourable acid-test ratio but an unfavourable change.

Company C's 2014 acid-test ratio indicates that it has favourable liquidity: $8.60 to cover each $1.00 of current liabilities as they come due. However, this is actually unfavourable because a company can have an acid-test ratio that is too high. If the acid-test ratio is too high, it is a reflection that the company has idle assets. Idle assets do not typically generate the most optimum levels of revenue. Remember that the purpose of holding assets is to generate revenue. In 2015, Company C's acid-test ratio increased a bit and it is still excessive which is unfavourable. So the change was favourable but because the ratio is too high, it reflects an unfavourable liquidity position, though for different reasons than Company A.

9.8 Appendix B: Ratio Analysis—Accounts Receivable Turnover

The accounts receivable turnover not only measures the liquidity of re- ceivables but also the efficiency of collection, referred to as turnover (i.e., accounts receivable *turnover* into cash). A low turnover indicates high lev- els of accounts receivable which has an unfavourable impact on liquidity since cash is tied up in receivables. A low turnover means management might need to review credit granting policies and/or strengthen collection efforts.

The accounts receivable turnover is calculated as:

Net credit sales (or revenues) ÷ Average net accounts receivable[4]

Average accounts receivable is calculated by taking the beginning of the period balance plus the end of the period balance and dividing the sum by two.

The accounts receivable turnover ratios for two companies operating in a similar industry are shown below:

Accounts Receivable Turnover

Year	Company A	Company B
2015	5.8	6.9

Company B is more efficient at collecting receivables than is Company A. The higher the ratio, the more favourable.

9.9 LET US SUM UP

- **Define internal control and explain how it is applied to cash.**
  The purpose of internal controls is to safeguard the assets of a business. Since cash is a particularly vulnerable asset, policies and procedures specific to cash need to be implemented, such as the use of cheques and electronic funds transfer for payments, daily cash deposits into a financial institution, and the preparation of bank reconciliations.

- **Explain and journalize petty cash transactions.**
  A petty cash fund is used to pay small, irregular amounts for which issuing a cheque would be inefficient. A petty cash custodian administers the fund by obtaining a cheque from the cash payments clerk. The cheque is cashed and the coin and currency placed in a locked box. The petty cash custodian collects receipts and reimburses individuals for the related amounts. When the petty cash fund is replenished, the receipts are compiled and submitted for entry in the accounting records so that a replacement cheque can be issued and cashed.
- **Explain the purpose of and prepare a bank reconciliation, and record related adjustments.**
  A bank reconciliation is a form of internal control that reconciles the bank statement balance to the general ledger cash account, also known as the book balance. Reconciling items that affect the bank statement balance are outstanding deposits, outstanding cheques, and bank errors. Reconciling items that affect the book balance are collections made by the bank on behalf of the company, NSF cheques, bank service charges, and errors. Once the book and bank statement balances are reconciled, an adjusting entry is prepared based on the reconciling items affecting the book balance.

- **Explain, calculate, and record estimated uncollectible accounts receivableand subsequent write-offs and recoveries.**

  Not all accounts receivable are collected, resulting in uncollectible accounts. Because it is not known which receivables will become uncollectible, the allowance approach is used to match the cost of estimated uncollectible accounts to the period in which the related revenue was generated. The adjusting entry to record estimated uncollectibles is a debit to Bad Debt Expense and a credit to Allowance for Doubtful Accounts (AFDA). The income statement method and the balance sheet method are two ways to estimate and apply the allowance approach. The income statement method calculates bad debt expense based on a percentage of credit sales while the balance sheet method calculates total estimated uncollectible accounts (aka the balance in AFDA) using an aging analysis. When receivables are identified as being uncollectible, they are written off. If write-offs subsequently become collectible, a recovery is recorded using two entries: by reversing the write-off (or the portion that is recoverable) and then journalizing the collection.

- **Explain and record a short-term notes receivable as well as calculate re-lated interest.**

  A short-term notes receivable is a promissory note that bears an interest rate calculated over the term of the note. Short-term notes receivable are current assets that mature within 12 months from the date of issue or within a business's operating cycle, whichever is longer. Notes can be issued to a customer at the time of sale, or a note receivable can replace an overdue receivable.

- **Explain and calculate the acid-test ratio.**

  The acid-test ratio is a strict measure of liquidity. It is calculated as quick current assets divided by current liabilities. Quick assets include cash, short-term investments, and accounts receivable.

- **Explain and calculate the accounts receivable turnover.**

  The accounts receivable turnover is a measure of liquidity and demonstrates how efficiently re- ceivables are being collected. It is calculated as net sales divided by average accounts receivable. Average accounts receivable are the sum of the beginning accounts receivable, including short- term notes receivable from customers, plus ending receivables, divided by two.

9.10 CHECK YOUR PROGRESS

Q-1 The following transactions were made by Landers Corp. in March 2017.

Mar. 1	Established a petty cash fund of $200		
12	Reimbursed the fund for the following:		
		Postage	$10
		Office supplies	50
		Maintenance	35
		Meals (selling expenses)	25
			$120
18	Increased the fund by an additional $200		
25	Reimbursed the fund for the following:		
		Office supplies	$75
		Delivery charges	30
			$105
28	Reduced the amount of the fund to $350.		

Required: Prepare journal entries to record the petty cash transactions.

Q-2 The following information pertains to Ferguson Corp. at December 31, 2016, its year-end:

Cash per company records		$5,005
Cash per bank statement		7,000
Bank service charges not yet recorded in company records Note collected by bank not yet recorded in company records: Amount of note receivable	$1,300	30
Amount of interest	25	1,325
Fluet inc. cheque deducted in error by bank December cheques not yet paid by bank in December: #631	$354	200
#642	746	
#660	200	
#661	300	1,600
December deposit recorded by the bank January 3, 2017	700	

Required: Prepare a bank reconciliation and all necessary adjusting entries at December 31, 2016.

Q-3 The Cash general ledger account balance of Gladstone Ltd. was $2,531 at March 31, 2018. On this same date, the bank statement had a balance of $1,500. The following discrepancies were noted:

a. A deposit of $1,000 made on March 30, 2018 was not yet recorded by the bank on the March statement.

b. A customer's cheque amounting to $700 and deposited on March 15 was returned NSF with the bank statement.

c. Cheque #4302 for office supplies expense, correctly made out for $125 and cleared the bank for this amount, was recorded in the company records incorrectly as $152.

d. $20 for March service charges were recorded on the bank statement but not in the company records.

e. A cancelled cheque for $250 belonging to Global Corp. but charged by the bank to Gladstone Ltd. was included with the cancelled cheques returned by the bank.

f. There were $622 of outstanding cheques at March 31.

g. The bank collected a net amount of $290: $250 regarding a note receivable, interest revenue of $50, and a $10 service charge that also is not included in the company records.

Required: Prepare a bank reconciliation and record all necessary adjusting entries at March 31, 2018.

Q-4 Sather Ltd. had the following unadjusted account balances at December 31, 2015 (assume normal account balances):

Accounts Receivable	$147,000
Allowance for Doubtful Accounts	3,000
Sales	750,000

Required:

a. Assume that Sather Ltd. estimated its uncollectible accounts at December 31, 2015 to betwo per cent of sales.

i. Prepare the appropriate adjusting entry to record the estimated uncollectible accountsat December 31, 2015.

ii. Calculate the balance in the Allowance for Doubtful Accounts account after posting theadjusting entry.

b. Assume that Sather Ltd. estimated its uncollectible accounts at December 31, 2015 to beten per cent of the unadjusted balance in accounts receivable.

i. Prepare the appropriate adjusting entry to record the estimated uncollectible accountsat December 31, 2015.

ii. Calculate the balance in the Allowance for Doubtful Accounts account after posting theadjusting entry.

c. Why is there a difference in the calculated estimates of doubtful accounts in parts (a) and(b)?

d. Which calculation provides better matching: that made in part (a) or in part (b)? Why?

9.11 ANSWER TO CHECK YOUR PROGRESS

ANS 1

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Mar. 1	Petty Cash		200	
	Cash			200
12	Office Supplies Expense		60	
	Maintenance Expense		35	
	Miscellaneous Selling Expense		25	
	Cash			120
18	Petty Cash		200	
	Cash			200
25	Office Supplies Expense		75	
	Delivery Expense		30	
	Cash			105
28	Cash		50	
	Petty Cash			50

ANS-2

Ferguson Corp.
Bank Reconciliation
At December 31, 2016

Cash per general ledger, Dec. 31		$5,005	Cash per bank statement, Dec. 31		$7,000
Add:	Note collected by bank	1,300	*Add*:	Error Fluet Inc. cheque	200
	Interest on note	25		Outstanding deposit	700
Less:	Bank service charges	(30)	*Less*:	Outstanding cheques	(1,600)
Adjusted Cash balance, Dec. 31		$6,300	Adjusted Cash balance, Dec. 31		$6,300

Adjusting entries resulting from bank reconciliation:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Dec. 31	Cash		1,325	
	Note Receivable			1,300
	Interest Earned			25
	To record the note collected by the bank.			
31	Interest and Bank Charges Expense		30	
	Cash			30
	To record service charges from the bank.			

OR

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Dec. 31	Cash		1,295	
	Interest and Bank Charges Expense		30	
	Note Receivable			1,300
	Interest Earned			25
	To record bank service charges and note collected by the bank.			

ANS 3

Gladstone Ltd.
Bank Reconciliation
At March 31, 2018

Cash per general ledger, Mar. 31		$2,531	Cash per bank statement, Mar. 31		$1,500
Add:	Error cheque No. 4302	27	*Add*:	Outstanding deposit	1,000
	Note receivable	250		Error re. Global	250
	Interest on note	50			
Less:	Service charges – March	(20)	*Less*:	Outstanding cheques	(622)
	Service charges – Note	(10)			
	NSF cheque	(700)			
Adjusted Cash balance, Mar. 31		$2,128	Adjusted Cash balance, Mar. 31		$2,128

Adjusting entries:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Mar. 31	Cash		27	
	Office Supplies Expense			27
	To correct ck. no. 4302			
	Cash		290	
	Interest and Bank Charges Expense		10	
	Note Receivable			250
	Interest Earned			50
	To record note collected by the bank.			
	Interest and Bank Charges Expense		20	
	Cash			20
	To record service charges for March.			
	Accounts Receivable		700	
	Cash			700
	To record NSF cheque returned.			

General Journal				
Date	Account/Explanation	PR	Debit	Credit
Mar. 31	Interest and Bank Charges Expense		30	
	Accounts Receivable		700	
	Office Supplies Expense			27
	Note Receivable			250
	Interest Earned			50
	Cash			403
	To record adjustments resulting from March 31, 2018 bank rec.			

ANS-4

a. i. Entry to record the estimated uncollectible accounts at December 31, 2015:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Bad Debt Expense		15,000	
	Allowance for Doubtful Accounts			15,000
	(2% × 750,000 = 15,000)			

ii. Allowance for Doubtful Accounts = 3,000 + 15,000 = 18,000

b. i. Entry to record the estimated uncollectible accounts at December 31, 2015:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Bad Debt Expense		11,700	
	Allowance for Doubtful Accounts			11,700
	[10% × 147,000] = 14,700 − 3,000 = 11,700			

ii. Allowance for Doubtful Accounts = 3,000 + 11,700 = 14,700
(or 10% × 147,000)

c. There is a difference in the estimates because different methods are used. The first method is based on a percentage of sales; the second on percentage of accounts receivable, a simplified balance sheet method.

d. The calculation made in part (a) above better matches revenues and expenses: the revenues (sales) is directly related to the amount that is written off as bad debt expense. The calculation made in part (b) above better matches accounts receivable to allowance for doubtful accounts and thus produces a better balance sheet valuation.

9.12 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.
5) Introduction to Financial Accounting by Henry Dauderis & David Annand Edited by Athabasca University

9.13 ASSSIGNMENT

1. What is internal control?
2. How does the preparation of a bank reconciliation strengthen the internal control of cash?
3. What are some reconciling items that appear in a bank reconciliation?
4. What are the steps in preparing a bank reconciliation?
5. What is an NSF cheque?
6. What is a petty cash system?
7. What is the difference between establishing and replenishing the petty cash fund?
8. How does use of allowance for doubtful accounts match expenses with revenue?
9. How does the income statement method calculate the estimated amount of uncollectible accounts?
10. What is an ageing schedule for bad debts, and how is it used in calculating the estimated amount of uncollectible accounts?
11. How are credit balances in accounts receivable reported on the financial statements?

Unit 10: Accounting for the sale of goods

10

Unit Structure

10.1. Learning Objectives

10.2. The Basics of Merchandising

10.3. The Purchase and Payment of Merchandise Inventory (Per-petual)

10.4. Merchandise Inventory: Sales and Collection (Perpetual)

10.5. Adjustments to Merchandise Inventory (Perpetual)

10.6. Closing entries for a Merchandiser

10.7. Appendix A: The Periodic Inventory System

10.8. Let us sum up

10.9. Check your progress

10.10. Answer to Check Your Progress

10.11. Further Reading

10.12. Assignment

10.1 LEARNING OBJECTIVES

After studying this unit student should be able to:

- Describe merchandising and explain the financial statement components of sales, cost of goods sold, merchandise inventory, and gross profit; differentiate between the perpetual and periodic inventory systems.
- Analyze and record purchase transactions for a merchandiser.
- Analyze and record sales transactions for a merchandiser.
- Record adjustments to merchandise inventory.
- Explain and prepare a classified multiple-step income statement for a merchandiser. LO6 – Explain the closing process for a merchandiser.
- Explain and identify the entries regarding purchase and sales transactions in a periodic inventory system.

10.2 The Basics of Merchandising

A merchandising company, or merchandiser, differs in several basic ways from a company that provides services. First, a merchandiser purchases and then sells goods whereas a service company sells services. For example, a car dealership is a merchandiser that sells cars while an airline is a service company that sells air travel. Because merchandising involves the purchase and then the resale of goods, an expense called **cost of goods sold** results. Cost of goods sold is the cost of the actual goods sold. For example, the cost of goods sold for a car dealership would be the cost of the cars purchased from manufacturers and then resold to customers. A service company does not have an expense called cost of goods sold since it does not sell goods. Because a merchandiser has cost of goods sold expense and a service business does not, the income statement for a merchandiser includes different details. A merchandising income statement highlights cost of goods sold by showing the difference between sales revenue and cost of goods sold called **gross profit** or **gross margin**. The basic income statement differences between a service business and a merchandiser are illustrated in Figure 10.1.

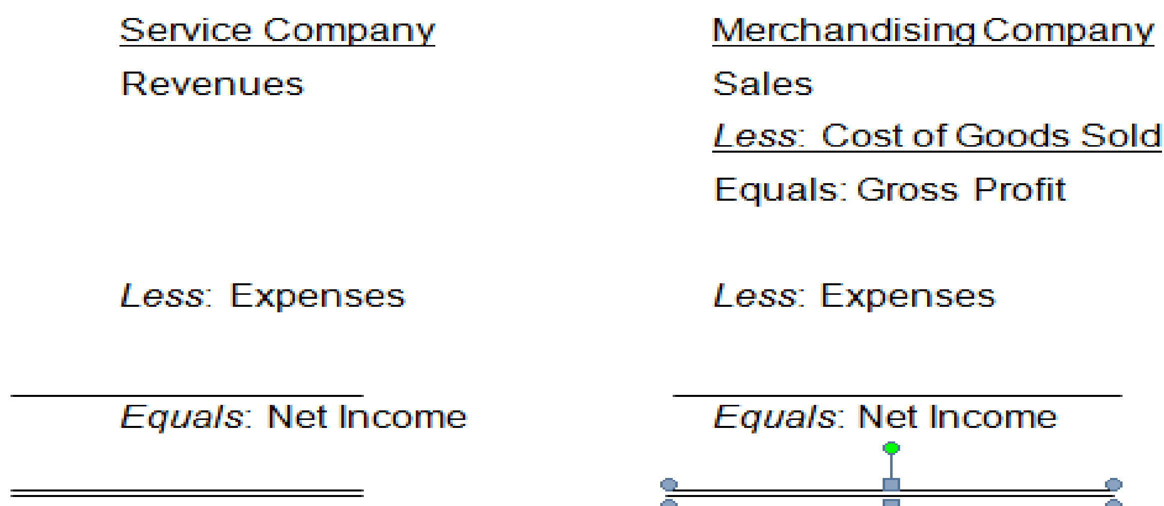


Figure 10.2: Differences Between the Income Statements of Service and Merchandising Companies

Assume that Excel Cars Corporation decides to go into the business of buying used vehicles from a supplier and reselling these to customers. If Excel purchases a vehicle for $3,000 and then sells it for $4,000, the gross profit would be $1,000, as follows:

Sales	$	4,000
Cost of Goods Sold		3,000
Gross Profit	$	1,000

The word “gross” is used by accountants to indicate that other expenses incurred in running the business must still be deducted from this amount before net income is calculated. In other words, gross profit represents the amount of sales revenue that remains to pay expenses after the cost of the goods sold is deducted.

A **gross profit percentage** can be calculated to express the relationship of gross profit to sales. The sale of the vehicle that cost $3,000 results in a 25% gross profit percentage ($1,000/4,000). That is, for every $1 of sales, the company has $.25 left to cover other expenses after deducting cost of goods sold. Readers of

financial statements use this percentage as a means to evaluate the performance of one company against other companies in the same industry, or in the same company from year to year. Small fluctuations in the gross profit percentage can have significant effects on the financial performance of a company because the amount of sales and cost of goods sold are often very large in comparison to other income statement items.

Another difference between a service company and a merchandiser relates to the balance sheet. A merchandiser purchases goods for resale. Goods held for resale by a merchandiser are called **merchandise inventory** and are reported as an asset on the balance sheet. A service company would not normally have merchandise inventory

Inventory Systems

There are two types of ways in which inventory is managed: perpetual inventory system or periodic inventory system. In a **perpetual inventory system**, the merchandise inventory account and cost of goods sold account are updated immediately when transactions occur. In a perpetual system, as merchandise inventory is purchased, it is debited to the merchandise inventory account. As inventory is sold to customers, the cost of the inventory sold is removed from the merchandise inventory account and debited to the cost of goods sold account. A perpetual system means that account balances are known on a real-time basis. This chapter focuses on the perpetual system.

Some businesses still use a **periodic inventory system** in which the purchase of merchandise inventory is debited to a temporary account called Purchases. At the end of the accounting period, inventory is counted (known as a **physical count)** and the merchandise inventory account is up- dated and cost of goods sold is calculated. In a periodic inventory system, the real-time balances in merchandise inventory and cost of goods sold are not known. It should be noted that even in a perpetual system a physical count must be performed at the end of the accounting period to record differences between the actual inventory on hand and the account balance. The entry to record this difference is discussed later in this chapter. The periodic system is discussed in greater detail in the appendix to this chapter

10.3 The Purchase and Payment of Merchandise Inventory (Per-petual)

As introduced in Chapter 3, a company's operating cycle includes purchases *on account* or *on credit* and is highlighted in Figure 10.2.

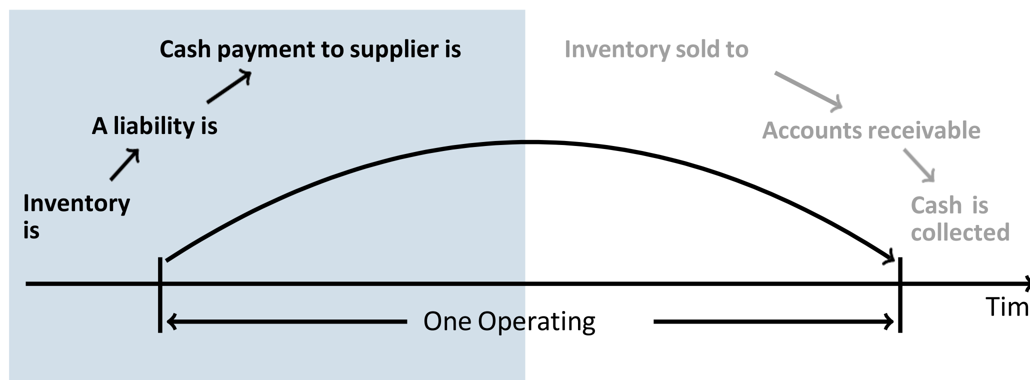


Figure 10. 3: Purchase and Payment Portion of the Operating Cycle

Recording the Purchase of Merchandise Inventory (Perpetual)

When merchandise inventory is purchased, the cost is recorded in a Merchandise Inventory general ledger account. An account payable results when the merchandise inventory is acquired but will not be paid in cash until a later date. For example, recall the vehicle purchased on account by Excel for $3,000. The journal entry and general ledger T-account effects would be as follows.

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Merchandise Inventory		3,000	
	Accounts Payable			3,000
	To record the purchase of merchandise inventory on account.			

In addition to the purchase of merchandise inventory, there are other activities that

affect the Merchandise Inventory account. For instance, merchandise may occasionally be returned to a supplier or damaged in transit, or discounts may be earned for prompt cash payment. These transactions result in the reduction of amounts due to the supplier and the costs of inventory. The purchase of merchandise inventory may also involve the payment of transportation and handling costs. These are all costs necessary to prepare inventory for sale, and all such costs are included in the Merchandise Inventory account. These costs are discussed in the following sections.

Purchase Returns and Allowances (Perpetual)

Assume that the vehicle purchased by Excel turned out to be the wrong colour. The supplier was contacted and agreed to reduce the price by $300 to $2,700. This is an example of a **purchase returns and allowances** adjustment. The amount of the allowance, or reduction, is recorded as a credit to the Merchandise Inventory account, as follows:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accounts Payable		300	
	Merchandise Inventory			300
	To record purchase allowance; incorrect colour.			

Note that the cost of the vehicle has been reduced to $2,700 ($3,000 – 300) as has the amount owing to the supplier. Again, the perpetual inventory system records changes in the Merchandise Inventory account each time a relevant transaction occurs.

Purchase Discounts (Perpetual)

Purchase discounts affect the purchase price of merchandise if payment is made within a time period specified in the supplier's invoice. For example, if the terms on the $3,000 invoice for one vehicle received by Excel indicates "1/15, n45", this

means that the $3,000 must be paid within 45 days ('n' = net). However, if cash payment is made by Excel within 15 days, the purchase price will be reduced by 1%.

Assuming the amount is paid within 15 days, the supplier's terms entitle Excel to deduct $27 [($3,000 - $300) = $2,700 x 1% = $27]. The payment to the supplier would be recorded as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accounts Payable		2,700	
	Merchandise Inventory			27
	Cash			2,673
	To record payment on account within the discount period.			

The cost of the vehicle in Excel's inventory records is now $2,673 ($3,000 – 300 – 27). If payment is made after the discount period, $2,700 of cash is paid and the entry would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accounts Payable		2,700	
	Cash			2,700
	To record payment of account; no pur-chase discount applied.			

Trade discounts are similar to purchase discounts. A supplier advertises a **list price** which is the normal selling price of its goods to merchandisers. **Trade discounts** are given by suppliers to merchandisers that buy a large quantity of goods. For instance, assume a supplier offers a 10% trade discount on purchases of 1,000 units or more where the list price is $1/unit. If Beta Merchandiser Corp. buys 1,000 units on account, the entry in Beta's records would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Merchandise Inventory		900	
	Accounts Payable			900
	To record purchase on account; 10% trade discount ($1,000 – 10% = $900).			

Note that the net amount (list price less trade discount) is recorded.

Transportation

Costs to transport goods from the supplier to the seller must also be considered when recording the cost of merchandise inventory. The shipping terms on the invoice identify the point at which ownership of the inventory transfers from the supplier to the purchaser. When the terms are **FOB shipping point**, ownership transfers at the 'shipping point' so the purchaser is responsible for transportation costs. **FOB destination** indicates that ownership transfers at the 'destination point' so the seller is responsible for transportation costs. FOB is the abbreviation for "free on board."

Assume that Excel's supplier sells with terms of FOB shipping point indicating that transportation costs are Excel's responsibility. If the cost of shipping is $125 and this amount was paid in cash to the truck driver at time of delivery, the entry would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Merchandise Inventory		125	
	Cash			125
	To record shipping costs on inventory purchased.			

The cost of the vehicle in the Excel Merchandise Inventory account is now $2,798 (calculated as $3,000 original cost - $300 allowance - $27 discount + $125 shipping). It is important to note that Excel's transportation costs to deliver goods

to customers are recorded as *delivery expenses* and ***do not*** affect the Merchandise Inventory account.

The next section describes how the sale of merchandise is recorded as well as the related costs of items sold.

10.4 Merchandise Inventory: Sales and Collection (Perpetual)

In addition to purchases on account, a merchandising company's operating cycle includes the sale of merchandise inventory *on account* or *on credit* as highlighted in Figure 10.4.

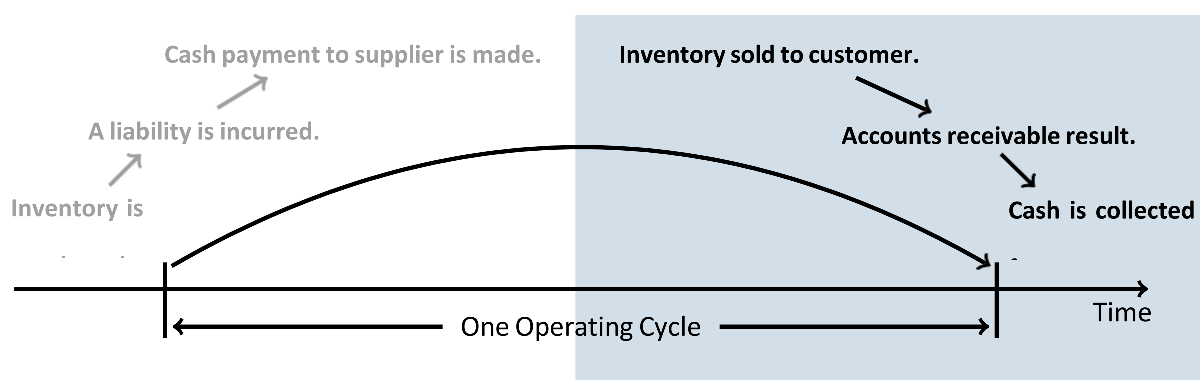


Figure 10..4: Sales and Collection Portion of the Operating Cycle

There are some slight recording differences when revenue is earned in a merchandising company. These are discussed below.

Recording the Sale of Merchandise Inventory (Perpetual)

The sale of merchandise inventory is recorded with two entries:

1. recording the sale by debiting Cash or Accounts Receivable and crediting Sales, and
2. recording the cost of the sale by debiting Cost of Goods Sold and crediting Merchandise Inventory.

Assume the vehicle purchased by Excel is sold for $4,000 on account. Recall that the cost of this vehicle in the Excel Merchandise Inventory account is $2,798, as shown below.

The entries to record the sale of the merchandise inventory are:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accounts Receivable		4,000	
	Sales			4,000
	To record the sale of merchandise on account.			

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Cost of Goods Sold		2,798	
	Merchandise Inventory			2,798
	To record the cost of the sale.			

The first entry records the sales revenue. The second entry is required to reduce the Merchandise Inventory account and transfer the cost of the inventory sold to the Cost of Goods Sold account. The second entry ensures that both the Merchandise Inventory account and Cost of Goods Sold account are up to date.

Sales Returns and Allowances

When merchandise inventory that has been sold is returned to the merchandiser by the customer, a **sales return and allowance** is recorded. For example, assume some damage occurs to the merchandise inventory sold by Excel while it is being delivered to the customer. Excel gives the customer a *sales allowance* by agreeing to reduce the amount owing by $100. The entry is:

General Journal

Date	Account/Explanation	PR	Debit	Credit
	Sales Returns and Allowances		100	
	Accounts Receivable			100
	To record allowance for damage to merchandise inventory during delivery.			

Accounts receivable is credited because the original sale was made on account and has not yet been paid. The amount owing from the customer is reduced to $3,900. If the $3,900 had already been paid, a credit would be made to Cash and $100 refunded to the customer. The Sales Returns and Allowances account is a contra revenue account and is therefore ***deducted*** from Sales when preparing the income statement.

If goods are returned by a customer, a *sales return* occurs. The related sales and cost of goods sold recorded on the income statement are reversed and the goods are returned to inventory. For example, assume Max Corporation sells a plastic container for $3 that it purchased for $1. The dual entry at the time of sale would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accounts Receivable		3	
	Sales			3
	To record sale on credit.			

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Cost of Goods Sold		1	
	Merchandise Inventory			1
	To record the cost of the sale.			

If the customer returns the container and the merchandise is restored to inventory,

the dual journal entry would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Sales Returns and Allowances		3	
	Accounts Receivable			3
	To record sales return.			

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Merchandise Inventory		1	
	Cost of Goods Sold			1
	To record sales return being restored to inventory.			

The use of a contra account to record sales returns and allowances permits management to track the amount of returned and damaged items.

Sales Discounts

Another contra revenue account, **Sales Discounts**, records reductions in sales amounts when a customer pays within a certain time period. For example, assume Excel Cars Corporation offers sales terms of "2/10, n30." This means that the amount owed must be paid by the customer within 30 days ('n' = net); however, if the customer chooses to pay within 10 days, a 2% discount may be deducted from the amount owing.

Consider the sale of the vehicle for $3,900 ($4,000 less the $100 allowance for damage). Payment within 10 days entitles the customer to a $78 discount ($3,900 x 2% = $78). If payment is made

within the discount period, Excel receives $3,822 cash ($3,900 - 78) and prepares the following entry:

General Journal

Date	Account/Explanation	PR	Debit	Credit
	Cash		3,822	
	Sales Discounts		78	
	Accounts Receivable			3,900
	To record payment on account and sales discount applied.			

This entry reduces the accounts receivable amount to zero which is the desired result. If payment is not made within the discount period, the customer pays the full amount owing of $3,900.

As was the case for Sales Returns and Allowances, the balance in the Sales Discounts account is deducted from Sales on the income statement to arrive at Net Sales. Merchandisers often report only the net sales amount on the income statement. Details from sales returns and allowances, and sales discounts, are often omitted because they are immaterial in amount relative to total sales. However, as already stated, separate general ledger accounts for each of sales returns and allowances, and sales discounts, are useful in helping management identify potential problems that require investigation.

10.5 Adjustments to Merchandise Inventory (Perpetual)

To verify that the actual amount of merchandise inventory on hand is consistent with the balance recorded in the accounting records, a physical inventory count must be performed at the end of the accounting period. When a physical count of inventory is conducted, the costs attached to these inventory items are totalled. This total is compared to the Merchandise Inventory account balance in the general ledger. Any discrepancy is called **shrinkage**. Theft and deterioration of merchandise inventory are the most common causes of shrinkage.

The adjusting entry to record shrinkage is:

General Journal

Date	Account/Explanation	PR	Debit	Credit
	Accounts Receivable		XX	
	Sales			XX

AND

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Cost of Goods Sold		XX	
	Merchandise Inventory			XX

(a) To record sales returns restored to inventory:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Sales Returns and Allowances		XX	
	Accounts Receivable			XX

AND

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Merchandise Inventory		XX	
	Cost of Goods Sold			XX

(b) ***To record sales returns and allowances (where returns are not restored to inventory):***

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Sales Returns and Allowances		XX	
	Accounts Receivable			XX

(c) ***To record discounts:***

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Sales Discounts		XX	
	Cash		XX	
	.			XX
	Accounts Receivable			

(d) ***To record adjustment for shrinkage at the end of the accounting period:***

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Cost of Goods Sold		XX	
	Merchandise Inventory			XX

The effect of these transactions on each of merchandise inventory and cost of goods sold is depicted below:

Merchandise Inventory (MI)	
(a) Purchase of MI	(b) Purchase Ret. & Allow.
(d) Shipping Costs	(c) Purchase Discounts
(f) Sales Return (when restored to inventory)	(e) Sale of MI
	(i) Shrinkage Adjustment
Adjusted Balance Reported on the Balance Sheet	

Cost of Goods Sold (COGS)	
(e) Cost of MI Sold	(f) Cost of sales returns restored to inventory
(i) Shrinkage Adjustment	
Adjusted Balance Reported on the Income Statement	

10.6 Closing entries for a Merchandiser

The process of recording closing entries for service companies was illustrated in Chapter 3. The closing procedure for merchandising companies is the same as for service companies — all income statement accounts are transferred to the Income Summary account, the Income Summary is closed to Retained Earnings, and Dividends are closed to Retained Earnings. merchandisers need to be considered — Sales, Sales Discounts, Sales Returns and Allowances, and Cost of Goods Sold. Sales is a revenue account so has a normal credit balance. To close Sales, it must be debited with a corresponding credit to the income summary. Sales Discounts and Sales Returns and Allowances are both contra revenue accounts so each has a normal debit balance. Cost of Goods Sold has a normal debit balance because it is an expense. To close these debit balance accounts, a credit is required with a corresponding debit to the income summary.

10.7 Appendix A: The Periodic Inventory System

The perpetual inventory system maintains a continuous, real-time balance in both Merchandise Inventory, a balance sheet account, and Cost of Goods Sold, an income statement account. As a result, the Merchandise inventory general ledger account balance should always equal the value of physical inventory on hand at any point in time. Additionally, the Cost of Goods Sold general ledger account balance should always equal the total cost of merchandise inventory sold for the accounting period. The accounts should perpetually agree; hence the name. An alternate system is consider-ered below, called the *periodic* inventory system.

Description of the Periodic Inventory System

The periodic inventory system does not maintain a constantly-updated

merchandise inventory balance. Instead, ending inventory is determined by a physical count and valued at the end of an accounting period. The change in inventory is recorded only periodically. Additionally, a Cost of Goods Sold account is not maintained in a periodic system. Instead, cost of goods sold is calculated at the end of the accounting period.

When goods are purchased using the periodic inventory system, the cost of merchandise is recorded in a **Purchases** account in the general ledger, rather than in the Merchandise Inventory account as is done under the perpetual inventory system. The Purchases account is an income statement account that accumulates the cost of merchandise acquired for resale.

The journal entry, assuming a purchase of merchandise on credit, is:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Purchases		XX	
	Accounts Payable			XX

Purchase Returns and Allowances (Periodic)

Under the periodic inventory system, any purchase returns or purchase allowances are accumulated in a separate account called **Purchase Returns and Allowances**, an income statement ac- count, and recorded as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accounts Payable		XX	
	Purchase Returns and Allowances			XX

Purchase Returns and Allowances is a contra expense account and the balance is deducted from Purchases when calculating cost of goods sold on the income statement.

Purchase Discounts (Periodic)

Another contra expense account, **Purchase Discounts**, accumulates reductions in the purchase price of merchandise if payment is made within a time period specified in the supplier's invoice and recorded as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accounts Payable		XX	
	Purchase Discounts			XX

Transportation (Periodic)

Under the periodic inventory system, an income statement account called **Transportation-in** is used to accumulate transportation or freight charges on merchandise purchased for resale. The

Transportation-in account is used in calculating the cost of goods sold on the income statement. It is recorded as:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Transportation-In		XX	
	Cash or Accounts Payable			XX

At the end of the accounting period, cost of goods sold must be calculated which requires that the balance in Merchandise Inventory be determined. To determine the end of the period balance in Merchandise Inventory, a physical count of inventory is performed. The total value of the inventory as identified by the physical count becomes the ending balance in Merchandise Inventory. Cost of goods sold can then be calculated as follows:

Beginning Balance of Merchandise Inventory	XX
Plus: Net Cost of Goods Purchased*	XX
Less: Ending Balance of Merchandise Inventory	XX
Equals: Cost of Goods Sold	XX

*Net Cost of Goods Purchased is calculated as:

Purchases	XX
Less: Purchase Returns and Allowances	XX
Less: Purchase Discounts	XX
Equals: Net Purchases	XX
Add: Transportation-In	XX
Equals: Net Cost of Goods Purchased	XX

Closing Entries (Periodic)

In the perpetual inventory system, the Merchandise Inventory account is continuously updated and is adjusted at the end of the accounting period based on a physical inventory count. In the periodic inventory system, the balance in Merchandise Inventory does not change during the ac- counting period. As a result, at the end of the accounting period, the balance in Merchandise Inventory in a periodic system is the beginning balance. In order for the Merchandise Inventory account to reflect the ending balance as determined by the physical inventory count, the beginning inventory balance must be removed by crediting Merchandise Inventory, and the ending inventory balance entered by debiting it. This is accomplished as part of the closing process. Closing entries for a merchandiser that uses a periodic inventory system are illustrated below using the adjusted trial balance information for Norva Inc

Norva Inc.
Adjusted Trial Balance
At December 31, 2015

	Debits	Credits
Cash	$15,000	
Merchandise inventory	1,000	
Accounts payable		$ 5,000
Common shares		8,000
Dividends	500	
Retained earnings		3,500
Sales		13,400
Sales discounts	200	
Purchases	5,000	
Purchase returns & allowances		800
Salaries expense	7,000	
Advertising expense	2,000	
Totals	$30,700	$30,700

Other information: The ending balance in merchandise inventory is $2,000 based on a physical count.

Step 1: Close debit balance income statement accounts plus beginning merchandise inventory:

Income Summary	15,200	
Merchandise Inventory		1,000
Sales Discounts		200
Purchases		5,000
Salaries Expense		7,000
Advertising Expense		2,000

Step 2: Close credit balance income statement accounts plus ending merchandise inventory:

Merchandise Inventory	2,000	
Sales	13,400	
Purchase Returns & Allowances	800	
Income Summary		16,200

Step 3: Close income summary to retained earnings:

Income Summary	1,000	
Retained Earnings		1,000

Step 4: Close dividends to retained earnings:

Retained Earnings	500	
Dividends		500

When the closing entries above are posted and a post-closing trial balance prepared as shown below, notice that the Merchandise Inventory account reflects the correct balance based on the physical inventory count.

Norva Inc.
Adjusted Trial Balance
At December 31, 2015

	Debits	Credits
Cash	$15,000	
Merchandise inventory	2,000	
Accounts payable		$ 5,000
Common shares		8,000
Retained earnings		4,000
Totals	$17,000	$17,000

10.8 LET US SUM UP

Describe merchandising and explain the financial statement components of sales, cost of goods sold, merchandise inventory, and gross profit; differentiate between the perpetual and periodic inventory systems.

Merchandisers buy and resell products. Merchandise inventory, an asset, is purchased from sup- pliers and resold to customers to generate sales revenue. The cost of the merchandise inventory sold is an expense called cost of goods sold. The profit realized on the sale of merchandise inventory before considering

any other expenses is called gross profit. Gross profit may be expressed as a dollar amount or as a percentage. To track merchandise inventory and cost of goods sold in real time, a perpetual inventory system is used; the balance in each of Merchandise Inventory and Cost of Goods Sold is always up-to-date. In a periodic inventory system, a physical count of the inventory must be performed in order to determine the balance in Merchandise Inventory and Cost of Goods Sold.

Analyze and record purchase transactions for a merchandiser.

In a perpetual inventory system, a merchandiser debits Merchandise Inventory regarding the purchase of merchandise for resale from a supplier. Any purchase returns and allowances or purchase discounts are credited to Merchandise Inventory as they occur to keep the accounts up-to-date.

Analyze and record sales transactions for a merchandiser.

In a perpetual inventory system, a merchandiser records two entries at the time of sale: one to record the sale and a second to record the cost of the sale. Sales returns that are returned to inventory also require two entries: one to reverse the sale by debiting a sales returns and allowances account and a second to restore the merchandise to inventory by debiting Merchandise Inventory and crediting Cost of Goods Sold. Sales returns not restored to inventory as well as sales allowances are recorded with one entry: debit sales returns and allowances and credit cash or ac- counts receivable. Sales discounts are recorded when a credit customer submits their payment within the discount period specified.

Record adjustments to merchandise inventory.

A physical count of merchandise inventory is performed and the total compared to the general ledger balance of Merchandise Inventory. Discrepancies are recorded as an adjusting entry that debits cost of goods sold and credits Merchandise Inventory.

Explain and prepare a classified multiple-step income statement for a merchandiser.

A classified multiple-step income statement for a merchandiser is for internal use because of the detail provided. Sales, less sales returns and allowances and sales

discounts, results in net sales. Net sales less cost of goods sold equals gross profit. Expenses are shown based on both their function and nature. The functional or group headings are: operating expenses, selling expenses, and general and administrative expenses. Within each grouping, the nature of expenses is detailed including: depreciation, salaries, advertising, wages, and insurance. A specific expense can be divided between groupings.

Explain the closing process for a merchandiser.

The steps in preparing closing entries for a merchandiser are the same as for a service company. The difference is that a merchandiser will need to close income statement accounts unique to merchandising such as: Sales, Sales Returns and Allowances, Sales Discounts, and Cost of Goods Sold.

Explain and identify the entries regarding purchase and sales transactions in a periodic inventory system.

A periodic inventory system maintains a Merchandise Inventory account but does not have a Cost of Goods Sold account. The Merchandise Inventory account is updated at the end of the accounting period as a result of a physical inventory count. Because a merchandiser using a period system does not use a Merchandise Inventory account to record purchase or sales transactions during the accounting period, it maintains accounts that are different than under a perpetual system, namely, Purchases, Purchase Returns and Allowances, Purchase Discounts, and Transportation-in

10.9 CHECK YOUR PROGRESS

Q-1 **Consider the following information of Jones Corporation over four years:**

		2014	*2013*	*2012*	*2011*
Required:	Sales	$10,000	$9,000	$?	$7,000
	Cost of Goods Sold	?	6,840	6,160	?
	Gross Profit	2,500	?	1,840	?
	Gross Profit Percentage	?	?	?	22%

10.7.1.1 Calculate the missing amounts for each year.

10.7.1.2 What does this information indicate about the company?

***Q-2* Reber Corp. uses the perpetual inventory system. Its transactions during July 2015 are as follows:**

July 6 Purchased $600 of merchandise on account from Hobson Corporation for terms 1/10, net 30.

9 Returned $200 of defective merchandise.

15 Paid the amount owing to Hobson.

Required: Prepare journal entries to record the above transactions for Reber Corp.

Q-3 Horne Inc. and Sperling Renovations Ltd. both sell goods and use the perpetual inventory system. Horne Inc. had $3,000 of merchandise inventory at the start of its fiscal year, January 1, 2015. During the 2015, Horne Inc. had the following transactions:

May 5 Horne sold $4,000 of merchandise on account to Sperling Renovations Ltd., terms 2/10, net 30. Cost of merchandise to Horne from its supplier was $2,500.

7 Sperling returned $500 of merchandise received in error which Horne returned to inventory; Horne issued a credit memo. Cost of merchandise to Horne was $300.

15 Horne received the amount due from Sperling Renovations Ltd.

A physical count and valuation of Horne's Merchandise Inventory at May 31, the fiscal year-end, showed $700 of goods on hand.

Required: Prepare journal entries to record the above transactions and adjustment:

a. In the records of Horne Inc.

b. In the records of Sperling Renovations Ltd.

Q-4 Below are transactions for March, 2016 for AngieJ Ltd.:

March 1	Purchased $25,000 of merchandise on account for terms 2/10, n30.
March 3	Sold merchandise to a customer for $5,000 for terms 1/10, n30. (Cost $2,600)
March 4	Customer from March 3 returned $200 of some unsuitable goods which were re- turned to inventory. (Cost $100)
March 5	Purchased $15,000 of merchandise from a supplier for cash and arranged for shipping, fob shipping point.
March 6	Paid $200 for shipping on the March 5 purchase.
March 7	Contacted the supplier from March 5 regarding $2,000 of merchandise with some minor damages. Supplier agreed to reduce the price and offered an allowance of $500 cash, which was accepted.
March 8	Sold $25,000 of merchandise for terms 1.5/10, n30. (Cost $13,000). Agreed to pay shipping costs for the goods sold to the customer.
March 9	Shipped the goods sold on March 8 to customer, fob destination for $500 cash. (Hint: Shipping costs paid to ship merchandise sold to a customer is an operating expense.)
March 11	Paid for fifty percent of the March 1 purchase to the supplier.
March 13	Collected the account owing from the customer from March 3.
March 15	Purchased office supplies on account for $540 for terms 1/10, n30.
March 18	Ordered merchandise inventory from a supplier totalling $15,000. Goods to be shipped on April 10, fob shipping point.
March 20	Collected $6,010 cash from an account owing from two months ago. The early payment discount had expired.
March 25	Paid for the March 15 purchase.
March 27	Sold $12,500 of merchandise inventory for cash (Cost $5,000).
March 31	Paid the remaining of the amount owing from the March 1 purchase.

Required: Prepare the journal entries, if any, for AngieJ Ltd.

Q-5 Below are the April, 2016 sales for Beautort Corp.

April 1 Purchased $15,000 of merchandise for cash.

April 3 Sold merchandise to a customer for $8,000 cash. (Cost $4,600)

April 5 Purchased $10,000 of merchandise from a supplier for terms 1/10, n30.

April 7 Returned $2,000 of damaged merchandise inventory from April 5 back to the supplier.

Supplier will repair the items and return them to their own inventory.

April 8 Sold $8,000 of merchandise for terms 2/10, n30. (Cost $4,000). Agreed to pay shipping costs for the goods sold to the customer.

April 9 Shipped the goods sold on April 8 to customer, fob shipping point for $500 cash. (Hint: Shipping costs paid to ship merchandise sold to a customer is not an inventory cost.)

April 10 Customer from April 3 returned $1,000 of unsuitable goods which were returned to inventory. (Cost $400). Amount paid was refunded.

April 10 Agreed to give customer from April 8 sale a sales allowance of $200.

April 12 Purchased inventory on account for $22,000 for terms 1/10, n30. April 15 Paid amount owing for purchases on April 5.

April 16 Paid $600 for shipping on the April 12 purchase.

April 18 Collected $5,000 cash, net of discount, for the customer account owing from April 8. April 27 Paid for the April 12 purchase.

April 27 Sold $20,000 of merchandise inventory for cash (Cost $10,000).

Required: Prepare the journal entries, if any, for Beautort Corp. Round final entry amounts to the nearest whole dollar.

Q-6 The following information is taken from the records of Smith Corp. for the year ended June 30, 2015:

Advertising Expense	$ 1,500
Commissions Expense	4,000
Cost of Goods Sold	50,000
Delivery Expense	500
Depreciation Expense – Equipment	500
Insurance Expense	1,000
Office Salaries Expense	3,000
Rent Expense – Office	1,000
Rent Expense – Store	1,500
Sales Salaries Expense	2,000
Sales	72,000
Sales Returns and Allowances	2,000

Required:

a. Prepare a classified multi-step income statement for the year ended June 30, 2015. Assume an income tax rate of 20%.

b. Compute the gross profit percentage, rounding to two decimal places.

10.10 ANSWER TO CHECK YOUR PROGRESS

ANS-1 a. The completed schedule is as follows:

	12% Bonds	*Preferred Shares*	*Common Shares*
Income before interest and income taxes	$12,000,000	$12,000,000	$12,000,000
Less: Interest expense	4,800,000[1]	-0-	-0-
Income before taxes	7,200,000	12,000,000	12,000,000
Less: Income taxes at 50%	3,600,000	6,000,000	6,000,000
Net income	3,600,000	6,000,000	6,000,000
Less: Preferred dividends	-0-	4,000,000[2]	-0-
Net income available to common shareholders (a)	$3,600,000	$2,000,000	$6,000,000
Number of common shares outstanding (b)	200,000	200,000	400,000
Earnings per common share (a/b)	$18	$10	$15

[1] $40,000,000 × 12% = $4,800,000
[2] 400,000 × $10 = $4,000,000

b. Issuing bonds is the financing option that is most advantageous to the common shareholders, all other factors being considered equal. It results in higher earnings per common share.

A second advantage of issuing bonds is that it does not disrupt current shareholder control. The option to issue more shares would distribute control over a larger number of shareholders causing the control held by the present shareholders to be diluted. A third advantage of issuing bonds is that interest expense is deductible for tax purposes, while dividends are paid out of after-tax dollars. One disadvantage of issuing bonds, which may make one of the other options more advantageous, is that interest expense is fixed. Issuing bonds increases interest expense and the company must earn enough income to cover the interest expense in any given year.

ANS -2

A.Entry to record the transaction:

General

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Land		50,000	
	Preferred Shares			50,000
	To record the purchase of a tract of land in exchange for preferred shares.			

b. The credit part of the transaction would be classified on the balance sheet in the equity section as part of share capital. The debit part of the transaction would be recorded as an asset in the property, plant, and equipment section.

ANS-3

a. The average price received for each issued preferred share is $54 ($3,456/64).

b. The average price received for each issued common share is $2.10 ($1,680/800).

c. The total contributed capital is $5,136 ($3,456 + 1,680).

ANS-4

a. Entry to record the declaration of the dividend:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
May 25	Dividends Declared		100,000	
	Dividends Payable			100,000
	To record the declaration of the dividend.			

b. Entry to record the payment of the dividend:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
June 26	Dividends Payable.........................		100,000	
	Cash...................................			100,000
	To record the payment of the dividend.			

ANS-5

a. Since the preferred shareholders have cumulative shares, they must receive all dividends in arrears ***and*** the current dividend before the common shareholders receive any dividends.

Dividends received by preferred shareholders (1,000 shares _ $5/share = $5,000/year dividend entitlement):

= Dividends in arrears for one year + Dividends for current year

= $5,000 + 5,000 = $10,000

Common shareholders receive the balance, or $4,000 ($14,000 □ $10,000).

b. Preferred shareholders receive dividends before the common shareholders. Since the preferred shareholders are not cumulative shares, they receive only the current dividend or $5,000. Common shareholders receive the balance, or $9,000 ($14,000 □ $5,000).

ANS-6

a. The $15,000 of dividends in arrears at December 31, 2019 does not appear as a liability.

Although the dividends pertain to cumulative shares, no liability exists until the board of directors declares a dividend. However, disclosure of dividends in arrears would be made in a note to the financial statements.

b. The company may have sufficient retained earnings but may not have sufficient cash to pay the dividends, taking into consideration other needs of the company.

c. The amount available for dividends to the common shareholders is calculated as follows:

Amount available for all dividends (1/2 _ $35,000) $17,500

Priority given to cumulative preferred shareholders

Arrears to December, 2019 (15,000)

Preferred dividends for 2020 (5,000)

Deficiency $(2,500)

The $2,500 deficiency in 2020 preferred dividends has to be paid in the future before any dividends are paid to common shareholders. There will be no dividends available for common shareholders at December 31, 2020 based on the projections.

10.11 FURTHER READING

1) Bhattacharya, Ashis; Financial Accounting; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; Financial Accounting; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; Practice of Financial Accounting; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; Accountancy; New Delhi: Sultan Chand & Sons.
5) Introduction to Financial Accounting by Henry Dauderis & David Annand Edited by Athabasca University

10.12 ASSIGNMENT

1. How does the income statement prepared for a company that sells goods differ from that prepared for a service business?

2. How is gross profit calculated? What relationships do the gross profit and gross profit per- centage calculations express? Explain, using an example.

3. What are some common types of transactions that are recorded in the merchandise Inventory account?

4. Contrast and explain the sales and collection cycle and the purchase and payment cycle.

5. What contra accounts are used in conjunction with sales? What are their functions?

6. (Appendix) Compare the perpetual and periodic inventory systems. What are some advantages of each?

Unit 11: PARTNERSHIP-I

11

UNIT STRUCTURE

11.1. Learning Objectives

11.2. Introduction

11.3. Meaning and Features of Partnership Business

11.4. Advantages and Disadvantages of Partnership

11.5. Meaning of Partnership Deed

11.6. Capital Accounts of Partners

11.7. Distinctions between Fixed and Fluctuating Capital Accounts

11.8. Profit and Loss Appropriation Account

11.9. Interest on Capital

11.10. Interest on Drawings

11.11. Let Us Sum Up

11.12. Further Reading

11.13. Check your progress

11.14. Answers to Check Your Progress

11.15. Assignment

11.1 LEARNING OBJECTIVES

After going through this unit, you will able to:

- discuss the meaning of the partnership business
- discuss the advantages and disadvantages of the partnership business
- explain the meaning and importance of partnership deed
- differentiate between fixed capital and fluctuating capital methods
- explain the profit and loss appropriation account
- discuss the process of calculating interest on capital and drawings

11.2 INTRODUCATION

In a partnership business two or more persons join together to carryon business. They decide to share the profit or loss of the business. All these arrangements depend on the agreement between the partners, which is known as partnership deed. There are various advantages and disadvantages of the partnership business. All these topics will be discussed in this unit

11.3 MEANING AND FEATURES OF PARTNERSHIP BUSINES

A partnership is an agreement between two or more persons to carry on a business and to share profits and losses arising therefrom in the ratio as decided earlier. Partnership is defined by the Partnership Act, 1932 as "The relation between persons who have agreed to share the profits of a business carried on by all or any of them acting for all. Persons who have entered into partnership with one another are called individually, "partners" and collectively "a firm", and the name under which their business is carried on is called the "firm name".

The above definition of partnership as given consists of the following basic elements–

a) There must be an association of two or more persons.

b) There must be an agreement between all the persons concerned.

c) The object of the agreement must be to share the profits and contributes to the losses of the business.

d) The business must be carried on by all or any of them acting for all.

It should be noted that, the person who takes active part in the day to day working of the business is known as active partner whereas the person who just contributes capital, share profits or losses of the business but does not take active part in the working of the business is known as sleeping or dormant partner.

Features of Partnership Firm: The features of partnership business are discussed below–

i) **Easy Formation:** The formation of partnership business is comparatively easy as its registration is purely optional.

ii) **Agreement:** There must be an agreement between all the partners of the partnership firm. The agreement may be express or implied.

iii) **No Separate Legal Entity:** The partnership firm has no separate legal entity apart from the partners.

iv) **Sharing of Profits:** There must be an agreement among all the partners to share profits and contribute to the losses of the business in the ratio agreed upon.

v) **Membership /Number:** A partnership business can be started with a minimum of two partners and the maximum number of partners cannot exceed 20. In case of banking business, the maximum number of partners is 10.

11.4 ADVANTAGES AND DISADVANTAGES OF PARTNERSHIP

After discussing the features of partnership business, now we will discuss the advantages and disadvantages of partnership business. The following are the advantages of partnership :

i) It is quite easy to start a partnership firm because, registration of a firm is not compulsory.

ii) The business risk is shared by all the partners. Hence in case of loss, burden will be comparatively less.

iii) The partners can take quick decisions on important matters and implement them accordingly.

iv) The following are the disadvantages of partnership :

v) The liability of the partners are unlimited. Even their private property can be attached for the payments of the debt of the firm.

vi) In case of large- scale business or industry the limited resources of the partners may not be sufficient.

vii) Absolute secrecy and privacy of the business cannot be maintained.

11.5 MEANING OF PARTNERSHIP DEED

A partnership is established by an agreement or contract between two or more persons who agreed to carry on a business. The agreement or contract may be either oral or written. Though the law does not make it compulsory to have a written agreement, but in order to avoid disputes and mistrusts among the partners in the course of time, it is always desirable to have the agreement in writing. The document containing the terms and conditions in writing among the partners is called Partnership Deed.

Such a document should be properly drafted on Government Non Judicial Stamp Paper as per the Stamp Act, signing by all the partners and contains the following particulars:

i) Name and address of the partners.

ii) Description of the firm.

iii) The type and nature of the business the firm proposes to do.

iv) Amount of capital to be contributed by each partner and whether the capital accounts will be fixed or fluctuating.

v) Interest on capital: Rate of interest on capital, if allowed.

vi) Drawings: The maximum amount a partner is entitled to withdraw from the firm for personal use.

vii) Interest on drawings: Rate of interest, if to be charged, on drawings.

viii) Profit sharing ratio: The ratio in which the partners are going to share the profits and losses arrising from the business.

ix) Interest on Loan: Rate of interest on loan by a partner to the firm.

x) Salary: Amount of salary, commission etc. if agreed to be paid to partners.

xi) Valuation of Assets: In case of reconstitution, the manner in which the assets of the firm shall be valued.

xii) Rules to be followed in case of admission of a partner.

xiii) Settlement of Account: In case of retirement or death or dissolution of the firm, the manner in which the accounts of partners shall be settled down.

xiv) Accounting period: The date on which accounts shall be closed every year.

xv) Right and duties of partners.

xvi) Duration of partnership: The period for which the partnership has been established.

11.6 CAPITAL ACCOUNTS OF PARTNERS

You are aware that in a partnership business all the partners require to contribute capital to the firm. Hence, separate Capital Accounts are maintained for each of the partner. For example, if there are three partners viz., A, B and C in a firm, there shall be three separate Capital Accounts for each of the partners. The Capital Accounts of partners may be maintained in any one of the following two methods :

A. Fixed Capital Accounts Method;
B. Fluctuating Capital Accounts Method.

Fixed Capital Accounts Method: Fixed capital means where capital of the partners shall remain fixed except in extraordinary circumstances. Under this method, two accounts viz., a Capital Account and a Current Account for each partner are maintained. Since original capital invested by the partners remain constant, hence all entries relating to drawings, interest on drawings, interest on capital, salary to partners, share of profit or loss etc. are made in Current Account.

Example 1: Record the following items in the Capital Accounts of A and B assuming that–

i. Fluctuating Capital Method is followed.

ii. Fixed Capital Method is followed.

	A	B
Capital on 1st Jan	2,00,000	1,00,000
Drawings during the year	25,000	20,000
Interest on partners loan	3,000	–
Partner's salary	12,000	9,600
Partner's Commission	–	4,000
Share of profit	30,000	15,000
Current Account balance	5000 (Cr.)	2000 (Dr.)

i) As per Fluctuating Capital Method:

Dr. **Partner's Capital A/C** **Cr.**

Date	Particulars	J.F.	A	B	Date	Particulars	J.F.	A	B
1 Jan	To Drawings A/c		25,000	20,000	1 Jan	By Balance B/d		2,00,000	1,00,000
to					1 Jan	,, salary A/c		12,000	9,600
31					to	,, Commission			4,000
Dec	To Balance c/d		2,17,000	1,08,600	31	,, Profit and loss			
					Dec.	Appropriation A/c		30,000	15,000
						(share of profit)			
			2,42,000	1,28,600				2,42,000	1,28,600

ii) As per Fixed Capital Method:

Dr. Partner's Capital A/C Cr.

Date	Particulars	J.F.	A	B	Date	Particulars	J.F.	A	B
31 Dec	To Balance c/d		2,00,000	1,00,000	1 Jan	By Balance b/d		2,00,000	1,00,000
					1 Jan				
			2,00,000	1,00,000				2,00,000	1,00,000

Dr. Partner's Current A/C Cr.

Date	Particulars	J.F.	A	B	Date	Particulars	J.F.	A	B
1 Jan	To Balance b/d			2,000	1 Jan	By Balance b/d		5,000	
1 Jan to 31 Dec	To Drawings		25,000	20,000	1 Jan	,, Salary A/c		12,000	9,600
					to	,, Commission			4,000
31 Dec	To Balance c/d		22,000	6,600	31 Dec.	,, Profit and loss Appropriation A/c (share of profit)		30,000	15,000
			47,000	28,600				47,000	28,600

Note: Interest on partner's loan is neither recorded in partner's Capital Account nor in partner's Current Account. It is infact recorded to partner's loan A/c. The question is silent about interest on capital and drawings hence no treatment is made here. Interest on partner's capital and drawings and its accounting treatment is discussed in the later pages.

11.7 DISTINCTIONS BETWEEN FIXED AND FLUCTUATING CAPITAL ACCOUNTS

Basis	Fixed Capital Account	Fluctuating Capital Account
No. of Accounts	Under this method two accounts are maintained for each partner viz., Capital Account and Current Account.	Only Capital Account for each partner is maintained under fluctuating capital account method.
Change in capital	Capital is unchanged from year to year.	Capital is changed from period to period.
Adjustment to be made	All adjustment entries (in respect of interest on capital and drawings, share of profit etc.) relating to partners are to be made in Current Account of each partner.	The adjustment entries are to be made to the Capital Account of each partner.
Position of balance	It can never show a negative balance.	In case of heavy losses or huge drawing of partners the Capital Account may show negative balance.

11.8 PROFIT AND LOSS APPROPRIATION ACCOUNT

In a partnership, there are certain transactions (such as interest on capital, interest on drawing, interest on partners loan, transfer to Reserve. Fund or any other fund, partner's salary, commission etc.) which are neither charged against profit nor to be mixed up with other general trading transactions. Hence, a new account which is just an extension of Profit and Loss Account is made where all the above transactions is to be shown and this extention of Profit and Loss Account is known as Profit and Loss Appropriation Account.

Features of Profit and Loss Appropriation Account:

i. It is prepared just after the completion of Profit and Loss Account.
ii. It is only prepared by partnership firm and Joint Stock companies.
iii. Preparation of this account is solely depends on partnership agreement and Partnership Act, 1932.

Distinctions between Profit and Loss Account and Profit and Loss Appropriation Account:

Profit and Loss Account	Profit and Loss Appropriation Account
It is prepared after Trading Account.	It is prepared after the preparation of Profit and Loss Account.
Profit and Loss Account starts with the gross profit or loss disclosed by Trading Account.	Profit and Loss Appropriation Account starts with net profit or loss disclosed by Profit and Loss Account.
It is prepared to ascertain net profit earned or loss suffered by the firm during the year.	It is prepared to share net profit or loss (as the case may be) among the partners.
The preparation of Profit and Loss Account is not based on partnership agreement except for interest on loan from partners.	The preparation of Profit and Loss Appropriation Account is completly based on partnership agreement.

11.9 INTEREST ON CAPITAL

The Indian Partnership Act 1932, does not lay down any provision for allowing interest on Partner's Capital. However, interest on capital is to be allowed only when it is expressly agreed to among the partners. If interest on capital is to be allowed as per agreement, it should be calculated with respect to the time, rate of interest and the amount of capital. It is to be noted that, as per sec 13(c) of the Partnership Act, where interest on capital is payable by agreement, it can be paid only out of profit. It means if in any year the business suffer losses, no interest on capital is allowed. The main aim of providing interest on capital is to bring out an equitable distribution of profit among the partners, where partners share profits and losses equally but their capital contributions are unequal and vice versa. The entries to be passed for allowing interest on capital are given below:

When Capital Accounts are fluctuating:

For allowing interest on capital–

Interest on Capital A/c Dr.

To Partner's Capital A/c

When Capital Accounts are fixed:

Interest on Capital A/c Dr.

To Partner's Current A/c

For closing the interest on capital account:

Profit and Loss Appropriation A/c Dr.

To Interest on Capital A/c

11.10 INTEREST ON DRAWINGS

Drawings means the amount withdrawn by partners (either in cash or in kind) for their personal use. No interest is charged on drawings made by partners unless the partnership deed provide for such interest. The main object of charging interest on drawings is to discourage partners to draw excessive amount of money from the firm. The calculation of interest on drawings under different situation may be as follows:

- When a fixed amount is withdrawn at the beginning of each month, interest will be calculated at the agreed rate for an average period of 6.5 months on the total amount withdrawn.
- When a fixed amount is withdrawn at the middle of each month, interest will be calculated at the agreed rate for on average period of 6 months on the total amount withdrawn.
- When a fixed amount is withdrawn at the end of each month, interest will be calculated at the agreed rate for an average period of 5.5 months on the total amount withdrawn.
- When a fixed amount is withdrawn at the begining of each quarter, interest will be calculated at the agreed rate for months on the total amount withdrawn.
  When a fixed amount is withdrawn at the end of each quater, interest will be calculated at the agreed rate for 4.5 months on the total amount withdrawn.
- When a fixed amount is withdrawn at the beining of each half year then interest

will be calculated on the total amount withdrawn for an average period of 9 months.

- When a fixed amount is withdrawn at the end of each half year then interest will be calculated on the total amount withdrawn for an average period of 3 months.

Example 2: On 1st Jan x and y started a partnership business with capital of Rs. 40,000 each sharing profits and losses equally. They are entitled to interest on capital @ 5% p.a. Profit for the year before charging up interest on capital amounted to Rs. 16,000.

Pass journal entries for interest on capital and distribution of profits at the end of the year where capital of the partners are (i) Fixed and (ii) Fluctuating.

Solution:

Where the capitals of the partners are fluctuating

Journal Entries in the books of the firm

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
Dec.31	Interest on Capital A/c Dr.		4,000	
	To X's Capital A/c			2,000
	To Y's Capital A/c			2,000
	(Being interest on capital @ 5% credited to partner's capital account)			
Dec.31	Profit and Loss Appropriation A/c Dr.		4,000	
	To Interest on Capital A/c			4,000
	(Being the transfer of interest on capital to Profit and Loss Appropriation A/c)			
	Profit and Loss Appropriation A/c Dr.		12,000	
	To X's Capital A/c			6,000
	To Y's Capital A/c			6,000
	(Being the balance of profit distributed in their profit sharing ratio)			

Profit and Loss Appropriation A/c for the year ended 31, Dec. ...

Dr. **Cr.**

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Interest on Capital x = 2,000 y = 2,000	4,000	By Profit and Loss A/c (Net profit)	16,000
To Partner's Capital A/c x = $\frac{1}{2}$ of 12,000 = 6,000 y = $\frac{1}{2}$ of 12,000 = 6,000	12,000		
	16,000		16,000

Where the capital of the partner's is fixed:

Date	Particulars	L.F.	Debit (Rs.)	Credit (Rs.)
Dec.31	Interest on Capital A/c Dr.		4,000	
	To X's Current A/c			2,000
	To Y's Current A/c			2,000
	(Being interest on capital @ 5% credited to partner's current			
Dec.31	Profit and Loss Appropriation A/c Dr.		4,000	
	To Interest on Capital A/c			4,000
	(Being the transfer of interest on capital to Profit and Loss Appropriation A/c)			
	Profit and Loss Appropriation A/c Dr.		12,000	
	To X's Current A/c			6,000
	To Y's Current A/c			6,000
	(Being the balance of profit distributed in their profit sharing ratio)			

Profit and Loss Appropriation A/c for the year ended 31, Dec. . . .

Dr. **Cr.**

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Interest on Capital x = 2,000 y = 2,000	4,000	By Profit and Loss A/c (Net profit)	16,000
To Partner's Current A/c x = $\frac{1}{2}$ of 12,000 = 6,000 y = $\frac{1}{2}$ of 12,000 = 6,000	12,000		
	16,000		16,000

Example 3: Arun and Barun started business on 1st Jan. 2014 with capital of Rs. 40,000 and Rs. 20,000 respectively. They agreed to share profits and losses in the ratio of 3 : 2. They are allowed interest on capital @ 10% p.a. and interest on drawings @ 6% p.a. Arun also advanced a loan of Rs. 10,000 to the firm on 1st June 2014.

During the year Arun withdrew Rs. 1000 p.m. in the beginning of every month, whereas Barun withdrew Rs. 1000 p.m. at the end of each month.

The net profit of the firm before considering the above mentioned adjustments for the year was Rs 20,400. Show the distribution of profits and prepare the partners Capital Accounts.

Solution:

Profit and Loss Appropriation A/c for the year ended 31, Dec.2014

Dr. Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Interest on Capital		By Net profit b/d	20,400
Arun = 10% of 40,000 = 4,000		Less: Interest on Arun's	
Barun = 10% of 20,000 = 2,000	6,000	loan (6% of 10,000 $\times \frac{7}{12}$)	350
To Partner's Current A/c		**By Interest on drawings**	
x = $\frac{3}{5}$ x 14,770 = 8862		Arun = 390	
y = $\frac{2}{5}$ x 14,770 = 5908		Barun = 330	720
	14,770		
	20,770		20,770

Calculation of Interest on Drawings:

Arun's drawings for the year = 1000 x 12 = Rs. 12,000

∴ Interest on drawings = 12,000 x 6% x $\frac{6.5}{12}$ = Rs. 390

Barun's drawing during the year = 1000 x 12 = Rs. 12,000

∴ Interest on drawings = 12,000 x 6% x $\frac{5.5}{12}$ = Rs. 330

Note : When partner provides loan to the firm and the rate of interest on such loan has not given in the question, then under the Partnership Act, interest @ 6% p.a. is to be allowed on such loan. Besides that, the amount of partner's loan and the interest on it, is not recorded in the capital account of the partner.

Dr. **Partner's Capital A/C** **Cr.**

Date	Particulars	J.F.	Arun	Barun	Date	Particulars	J.F.	Arun	Barun
1 Jan to 31 Dec	To Balance B/d		12,000	12,000	1 Jan	By Balance b/d		40,000	20,000
					1 Jan to 31 Dec.	,, Interest, on capital, A/c		4,000	2,000
31 Dec	To Interest on drawings A/c		390	330	31 Dec.	,, Profit and Loss Appropriation A/c		8,862	5,908
31 Dec	To Balance c/d		40,472	15,578					
			52,862	27,908				52,862	27,908
					1 Jan	By balance b/d		40,472	15,578

11.11 LET US SUM UP

In this unit we have discussed the following aspects–

- The partnership is a form of business carried on by the partners;
- The partners have agreed to share the profits or loss of the business;
- The partnership firm has no separate legal existence apart from the partners;
- The risk of the business is shared by the partners;
- The liability of the partners is unlimited;
- The agreement on the basis of which partners carry on the business is known as partnership deed.
- The Capital Accounts of partners may be maintained as (a) Fixed Capital Accounts or (b) Fluctuating Capital Accounts Method;
- Under fixed capital account method two accounts are maintained for each partner viz., Capital Account and Current Account;
- Under fluctuating capital account method only Capital Account for each partner is maintained;
- Profit and Loss account is prepared to ascertain net profit earned or loss suffered by the firm during the year.

- Profit and Loss Appropriation account is prepared to share net profit or loss among the partners.
- The Indian Partnership Act 1932, does not lay down any provision for allowing interest on Partner's Capital. However, interest on capital is to be allowed only when it is expressly agreed to among the partners.
- If the partnership deed provides the interest on drawings can be charged.

11.12 FURTHER READING

1) Bhattacharya, Ashis; Financial Accounting; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; Financial Accounting; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; Practice of Financial Accounting; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; Accountancy; New Delhi: Sultan Chand & Sons.

11.13 CHECK YOUR PROGRESS

Q.1: What is partnership deed?

Q.2: State two advantages and two disadvantages of partnership business.

Q.3: What is fixed capital A/c method?

Q.4: What is fluctucting capital A/c?

Q.5: State two differences between profit and loss Account and Profit and Loss Appropriation account.

11.14 ANSWER TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: A partnership is established by an agreement between the partners who have agreed to carry on a business. The agreement may be either oral or written. The document contains the terms and conditions, agreed by the partners is called partnership deed.

Ans. to Q. No. 2: The advantages of partnership business are–

i) It is quite easy to start a partnership firm because, registration of a firm is not compulsory.

ii) The business risk is shared by all the partners. Hence in case of loss, burden will be comparatively less.

The disadvantages of partnership business are–

i) The liability of the partners are unlimited. Even their private property can be attached for the payments of the debt of the firm.

ii) In case of large- scale business or industry the limited resources of the partners may not be sufficient.

Ans. to Q. No. 3: Fixed capital means where capital of the partners shall remain fixed except in extraordinary circumstances. Under this method, two accounts viz., a Capital Account and a Current Account for each partner are maintained. Since original capital invested by the partners remain constant, hence all entries relating to drawings, interest on drawings, interest on capital, salary to partners, share of profit or loss etc. are made in Current Account.

Ans. to Q. No. 4: Fluctuating capital means where capital of the partners go on changing from time to time. Unlike fixed capital method, only capital account for each partner are maintained under this method, where all the entries relating to drawings, interest on drawings, interest on capital, salary to partners, share of profit or loss etc are recorded in Capital Accounts.

Ans. to Q. No. 5:

i) Profit and Loss Account is prepared after Trading Account. Profit and Loss Appropriation Account is prepared after the preparation of Profit and Loss Account.

ii) Profit and Loss Account starts with the gross profit or gross loss disclosed by Trading Account.

Profit and Loss Appropriation Account starts with net profit or net loss disclosed by Profit and Loss Account.

11.15 ASSIGNMENT

Q.1: What is a Partnership Deed?

Q.2: What is Partner's Current Account?

Q.3: Distinguish between Fixed and Fluctuating Capital Account.

Q.4: What is the Profit and Loss Appropriation Account?

Q.5: Distinguish between Profit and Loss Account and Profit and Loss Appropriation Account.

Q.6: P. Q. and R are partners (sharing profits equally) in a firm. Calculate interest on partner's drawings if :

i. P draws Rs. 2000 from the firm in the begining of every month.

ii. Q draws Rs 2000 from the firm in the middle of every month.

iii. R draws Rs 2000 from the firm at the end of every month. Interest on drawings is to be charged @ 5% p.a.

Q.7: A and B are partners in a firm having capital of Rs 3,00,000 and Rs 2,00,000 respectively. The terms of the partnership agreement are–

i. Partners shall be entitled to interest on capital @ 6% p.a.

ii. Interest on drawings shall be charged @ 8% p.a.

iii. Transfer Rs 20,000 from the distributable profits to the Reserve.

iv. The profit made by the firm during the year before considering interest on capital and drawings is Rs 1,96,800.

The partners withdraw Rs. 30,000 each during the year from the firm. You are required to prepare the Profit and Loss Appropriation Account and Capital Account of the partners assuming that the capital of the partners are fluctuating for the year.

Unit 12: PARTNERSHIP-II

12

UNIT STRUCTURE

12.1. Learning Objectives

12.2. Introduction

12.3. Meaning of Admission of a Partner in a Partnership Business

12.4. Matters Requiring Attention on the Reconstitution of Partnership

12.5. New Profit Sharing Ratio on Admission of a Partner

12.6. Meaning of Retirement of Partner

12.7. New Profit Sharing Ratio and Gaining Ratio on Retirement of a Partner

12.8. Differences between Sacrificing Ratio and Gaining Ratio

12.9. Accounting Treatment of Goodwill at the Time of Retirement of Partner

12.10. Revaluation of Assets and Liabilities

12.11. Let Us Sum Up

12.12. Further Reading

12.13. Check your progress

12.14. Answers to Check Your Progress

12.15. Assignment

12.1 LEARNING OBJECTIVES

After going through this unit, you will able to-

- discuss the meaning of admission of a partner in a partnership firm
- calculate the new profit sharing ratio at the time of admission of a partner
- discuss the meaning of retirement of a partner from a partnership firm
- calculate the new profit sharing ratio at the time of retirement of a partner
- differentiate between sacrificing ratio and gaining ratio
- discuss the accounting treatment of goodwill at the time of retirement of partner
- explain the revaluation of assets and liabilities.

12.2 INTRODUCTION

As we have already discussed in the previous unit that a partnership is a mutual agreement among two or more persons to carry on some legal business. The partners share the profit or loss of the business at an agreed ratio. Due to the expansion of the business or other requirements, the partners may admit a new partner in the partnership firm, resulting in reconstitution of the partnership. You are aware that the existing partners have to sacrifice a part of their share in favour of the new partner and a new profit sharing ratio come into existence among all the partners.

Now let us consider a situation just opposite to it. A partner wants to leave the partnership firm. In this case also there will be some changes in the agreement of the partnership, resulting in reconstitution of the partnership. The partners will face some issues like, share of the outgoing partner, how they will share the part of the outgoing partner etc. In this unit we will discuss these issues that arises when a partner leave the firm.

12.3 MEANING OF ADMISSION OF A PARTNER IN A PARTNERSHIP BUSINESS

When a new partner joins an existing sole trade firm it becomes a partnership firm and the owners of the business enters into an agreement of partnership. Similarly, when a new partner join an existing partnership firm, the existing agreement of partnership have to change to incorporate new changes. This is known as reconstitution of partnership. When a new partner joins a business, the old partners have to sacrifice a part of the future profit and the reputation that they have earned during the course of time. The new partner has to compensate the old partners for their sacrifice. This takes place in the form of payment for goodwill by the new partner.

A partnership is a relation arising out of an agreement among some definite persons who are involved in the agreement. Any change in the agreement changes the relationship between the partners and such change in the relationship is knwon as Reconstitution of Partnership. Reconstitution of partnership may takes place in any of the following modes :

a) **Admission of a New Partner:** Admission of a partner means admitting a new person as a partner of the partnership firm. The new partner brings additional capital which helps in expansion of the business.

b) **Retirement of a Partner:** Whenever a partner due to his ill health or old age or any other reason decides to end up his relationship with firm, retirement of a partner takes place.

c) **Death of a Partner:** When a partner dies, it brings about a change in the relationship among the continuing partner. The profit sharing ratio of the existing partners will change and therefore the reconstitution will take place.

d) **Amalgamation of Firms:** When a partnership firm merge with another partnership firm or a sole trading firm and forms a new partnership firm, it is called amalgamation of firms. It leads to reconstitution of partnership. In this unit we will focus our discussion on the admission of a new partner.

12.4 MATTERS REQUIRING ATTENTION ON THE RECONSTITUTION OF PARTNERSHIP

Valuation of Goodwill:

The established popularity of a business is known as goodwill. When there is a change in the existing profit sharing ratio, it enables some partners to gain while others may sacrifice in their profit sharing ratio. In such a situation the amount of compensation paid by the partners who gains is known as goodwill. In case of partnership business the need for valuation of goodwill arises:

i) When there is a change in profit sharing ratio of existing partners.

ii) On the admission of a new partner.

iii) On the retirement or death of a partner.

iv) When two or more firms are amalgamated.

v) When the business is dissolved.

vi) When the business is sold.

vii) When the partnership firm is converted into limited company.

12.5 NEW PROFIT SHARING RATIO ON ADMISSION OF A PARTNER

We have already discussed that when a new partner is admitted in a partnership firm, the old partners have to sacrifice a portion of their share. The proportion, in which the old partner sacrifices his share in favour of the incoming partner, is known as sacrificing ratio. As the firm has been reconstituted as a consequence of admission of the partner, now all the partners will have a new arrangement to share the profit and loss of the firm. This new set of ratio is the new profit sharing ratio.

The calculation of the new profit sharing ratio depends upon the agreement between the existing partners and the incoming partners.

Following situations will explain how a new profit sharing ratio is calculated:

Situation No. 1: When the share of the incoming partner is given without mentioning any changes in the shares of the existing partners.

Example 1: Arun and Barun are partners sharing profits and losses in the ratio of 4 : 1. They admited Tarun as a new partner for $\frac{1}{5}^{th}$ share in future profits. Calculate the new profit sharing ratio of the partners.

Solution: Let, the total share be 1

Tarun's share = $\frac{1}{5}^{th}$

∴ Remaining share = $= 1 - \frac{1}{5} = \frac{5-1}{5} = \frac{4}{5}^{th}$

∴ The remaining share $\frac{4}{5}$ will be shared by Arun and Barun in their old ratio i.e., 4 : 1

∴ Arun's new share = $\frac{4}{5}$ of $\frac{4}{5} = \frac{16}{25}$

∴ Barun's new share = $\frac{1}{5}$ of $\frac{4}{5} = \frac{4}{25}$

∴ Tarun's share = $\frac{1}{5} \times \frac{5}{5} = \frac{5}{25}$

∴ The new profit sharing ratio among Arun : Barun : Tarun = 16 : 4 : 5

Situation No. 2: When the incoming partners takes his share from the existing partners in certain proportions.

Example 2: Arun and Barun are partners sharing profits and losses in the ratio of 4 : 1. They admited Tarun as a new partner for $\frac{3}{10}^{th}$ share, which he acquired $\frac{2}{10}^{th}$ from Arun and $\frac{1}{10}$ from Barun, Calcutate the new profit sharing ratio.

Solution: Arun's old share = $\frac{4}{5}$

∴ Arun's new share = $\frac{4}{5} - \frac{2}{10} = \frac{8-2}{10} = \frac{6}{10}$

Barun's old share = $\frac{1}{5}$

∴ Barun's new share = $\frac{1}{5} - \frac{1}{10} = \frac{2-1}{10} = \frac{1}{10}$

and Tarun's share = $\frac{3}{10}$

∴ New profit and loss ratio between Arun : Barun : Tarun = 6 : 1 : 3

Situation No. 3: When the existing partners surrender a fraction of their share for the new partners.

Example 3: Arun and Barun are partners sharing profits and losses in the ratio of 4 : 1. Arun surrender $\frac{1}{4}^{th}$ of his share and Barun surrendered $\frac{1}{3}^{rd}$ of his share in fovour of Tarun who is a new partner. Calculate the new profit sharing ratio.

Arun surrendered = $\frac{1}{4}$ of $\frac{4}{5} = \frac{4}{20}$

∴ Arun's new share = $\frac{4}{5} - \frac{4}{20} = \frac{16-4}{20} = \frac{12}{20}$

Barun surrendered = $\frac{1}{3}$ of $\frac{1}{5} = \frac{1}{15}$

∴ Barun's new share = $\frac{1}{5} - \frac{1}{15} = \frac{3-1}{15} = \frac{2}{15}$

and Tarun's share = $\frac{4}{20} + \frac{1}{15} = \frac{12+4}{60} = \frac{8}{60}$

∴ New profit sharing sharing ratio among Arun : Barun : Tarun

$= \frac{12}{20} : \frac{2}{15} : \frac{8}{60} = \frac{36}{60} : \frac{8}{60} : \frac{8}{60}$

= 9 : 2 : 2

12.6 MEANING OF RETIREMENT OF PARTNER

When a person/partner ceases to be partner in a firm due to his/her ill health, old age or any other reason it is known as retirement of a partner. In case of retirement, the retiring partner must serve a notice, at least six months before, to other partners of his intention of retirement.

According to section 32(1) of the Indian Partnership Act 1932, a partner can retire in the following ways :

a) With the consent of all the partners.

b) As per an express agreement.

c) Serving notice in writing to all the existing partners regarding his intention to retire from the firm when the partnership is at will.

In case of retirement/death the existing partnership firm is legally dissolved and the remaining partners may agree to form a new partnership firm immediatly after such retirement/death of a partner. But as soon as a partner retires or dies the following questions may arise :

a) The amount due to the outgoing partner on his retirement.

b) The amount due to the executors or legal representatives in case of death of a partner.

c) The mode of repayment of the retiring or deceased partners balance of capital.

Matters Requiring Attention at the Time of Retirement/Death:

In case of retirement/death the following matters are to be taken into consideration:

1. Calculation of new profit sharing ratio and gaining ratio.
2. Accounting treatment of goodwill.
3. Revaluation of assets and liabilities.
4. Distribution of reserve and accumulated profit or loss.
5. Sharing of profit or loss upto the date of retirement.
6. Adjustment of capital if required.
7. Payment of the amount due to the retiring partner.

12.7 NEW PROFIT SHARING RATIO AND GAINING RATIO ON RETIREMENT OF A PARTNER

After the death or retirement of a partner the remaining partners will share the profit or loss of the partnership firm in the new profit sharing ratio. The calculation of new profit sharing ratio of the remaining partners depends upon the following situation:

a) The remaining partners may strike out the share of the retiring or deceased partner and find out the ratio of the continuing partner.

Example 1: Q. R and S are partners in a firm sharing profits as 3 : 2 : 2. S retires. Ascertain the new profit sharing ratio of the remaining partners.

Solution: Since, nothing has been mentioned about the new profit sharing ratio of the remaining partners, therefore Q and R will share profits or losses in the same ratio as between themselves.

- ❖ The new profit sharing ratio between Q an R = 3 : 2

b) The continuing partners may agree to share the retiring or deceased partner's share in an agreed proportion.

Example 2: Q, R and S are partners in a firm sharing profits as 2 : 2 : 3. S retires and his share was taken up by Q and R in the ratio of 2 : 1. Calculate the new profit sharing ratio.

Q gains = $\frac{2}{3}$ of $\frac{3}{7} = \frac{2}{7}$

R gains = $\frac{1}{3}$ of $\frac{3}{7} = \frac{1}{7}$

$\therefore$ Q's new ratio = $\frac{2}{7} + \frac{2}{7} = \frac{2+2}{7} = \frac{4}{7}$

$\therefore$ R's new ratio = $\frac{2}{7} + \frac{1}{7} = \frac{2+1}{7} = \frac{3}{7}$

$\therefore$ New profit sharing ratio = 4 : 3

Gaining Ratio: Gaining ratio or benefit ratio is the portion of the share of the retiring or deceased partner, taken over by the continuing/ remaining partners. It is the difference between the new ratio and old ratio of the remaining partners. This ratio is necessary

for the distribution of goodwill. Gaining ratio is calculated by applying the following formula : Gaining ratio = New share – old share

It is to be noted that when the new ratio is not given, in that case old profit sharing ratio and gaining ratio would be same.

Example 4: X, Y and Z are equal partners in a firm. Y retires and the remaining partners decide to share the profits of the new firm in the ratio of 5 : 4. Calculate the gaining ratio.

Solution: Old ratio among x : y : z = 1 : 1 : 1

New ratio among x : z = 5 : 4

∴ Gaining ratio = New ratio – Old ratio

$$\therefore x = \frac{5}{9} - \frac{1}{3} = \frac{5-3}{9} = \frac{2}{9}$$

$$z = \frac{4}{9} - \frac{1}{3} = \frac{4-3}{9} = \frac{1}{9}$$

∴ Gaining ratio = 2 : 1

12.8 DIFFERENCES BETWEEN SACRIFICNING RATIO AND GAINING RATIO

The differences between sacrificing ratio and gaining ratio are discuss below:

	Basis	Sacrificing ratio	Gaining ratio
1.	Meaning	It is the ratio in which the old partners agreed to sacrifice their share of profit in favour of incoming partner.	It is the ratio in which the remaining partners acquires the share of retired/ deceased partner.
2.	Situation	It is calculated at the time of admission of a new partner.	It is calculated at the time of retirement or death of an existing partner.

	Basis	Sacrificing ratio	Gaining ratio
3.	Objective	It is calculated to determine the amount of compensation to be paid by the incoming partner to the existing partners who have sacrificed their share of profit in fovour of him.	It is calculated to determine the amount of compensation to be paid by the remaining partners to the retired or deceased partner.
4.	Method of Calculation	It is calculated by deducting new profit sharing ratio from old profit sharing ratio.	It is calculated by deducting old profit sharing ratio from new profit sharing ratio.

12.9 ACCOUNTING TREATMENT OF GOODWILL AT THE TIME OF RETIREMENT

As goodwill has been earned by the firm with the collective efforts of all the partners, therefore a retiring or deceased partner is also entitled to his share of goodwill at the time of his retirement or death. In such a case, valuation of goodwill is done as per the terms of the agreement amongst the partners. After ascertaining the value of goodwill, necessary entry is to be passed in the books of accounts of the partnership firm to give benefit to the retiring partner or executors of the decased partner.

12.10 REVALUATION OF ASSETS AND LIABILITIES

Revaluation of assets and liabilities is also necessary at the time of retirement or death of a partner. To give effect to this, Revaluation Account or profit and loss adjustment account is opened. The entries to be passed for revaluation depends on the following two heads :

When assets and liabilities are to be shown at the revised values in the balance sheet after revaluation.

Example 5: A, B and C are partners sharing profits and losses in the ratio of 3 : 2 : 1. When A retires, the value of machinery of Rs. 60,000 was valued at Rs. 80,000, while creditors and stock deereased by Rs. 2,000 and Rs. 4,000 respectively.

Pass necessary journal entries for the above.

Solution:

Journal Intries in the books of the firm

Date	Particulars	L.F.	Dr. (Rs.)	Cr. (Rs.)
	Revaluation A/c Dr.		4,000	
	To stock A/c			4,000
	(Being fall in the value of stock debited to revaluation account)			
	Machinery A/c Dr.		20,000	
	Creditors A/c Dr.		2,000	
	To Revaluation A/c			22,000
	(Being gain on revaluation of machinery and creditors credited to revaluation account)			
	Revaluation A/c Dr.		18,000	
	To A's capital A/c			9,000
	To B's capital A/c			6,000
	To C's capital A/c			3,000
	(Being profit on revaluation transfred to all capital A/c in old profit sharing ratio)			

When the assets and liabilities are to be shown in the books at the old values even after revaluation.

Example 6: A. B and C are partners sharing profits and losses in the ratio of 3 : 2 : 1. A retires and the value of machinery of Rs. 60,000 was valued at Rs. 80,000, while creditors and stock, decreased by Rs. 2,000 and Rs. 4,000 respectively. B and C decided to show the assets and liabilities at their original values in the books.

Pass necessary journal entries for the above.

Solution:

Journal entries in the books of the firm

Date	Particulars	L.F.	Dr. (Rs.)	Cr. (Rs.)
	Memorandum			
	Revaluation A/c Dr.		4,000	
	To Stock A/c			4,000
	(Being fall in the value of stock debited to revaluation account)			
	Machinery A/c Dr.		20,000	
	Creditors A/c Dr.		2,000	
	To Memorandum			
	Revaluation A/c			22,000
	(Being gain on revaluation of machinery and creditors credited to revaluation account)			
	Memorandum			
	Revaluation A/c Dr.		18,000	
	To A's capital A/c			9,000
	To B's capital A/c			6,000
	To C's capital A/c			3,000
	(Being profit on revaluation transfred to all partners capital A/c in their old profit sharing ratio)			
	Stock A/c Dr.		4,000	
	To Memorandum			
	Revaluation A/c			4,000
	(Being reversal of the entry)			
	Memorendum			
	Revaluation A/c Dr.		22,000	
	To Machinery A/c			20,000
	To Creditors A/c			2,000
	(Being reversal of the entry)			
	B's Capital A/c Dr.		12,000	
	C's Capital A/c Dr.		6,000	
	To Memorandum Revaluation A/c			18,000
	(Being reversal of the entry)			

Sharing of Profit/Loss upto the Date of Retirement/Death: When a partner retires or dies on the closing day of an accounting year then the profit / loss of that year has been adjusted into the capital accounts of the partners. But, if the partner retires or dies in any day within the accounting year, then profit / loss from the date of last balance sheet to the date of his/ her retirement / death is calculated.

Adjustment of Capital: Sometimes after retirement or death of a partner the remaining partners may decide to adjust their capital in proportion to their new profit sharing ratio. In that case, each partner's capital is to be calculated first on the basis of his new profit sharing ratio and the amount of shortage in capital , if any, is paid by the partners to the firm and if there is any surplus in the capital, the same is paid to the partner.

Payment of the Amount due to the Retiring Partner or Executor of the Deceased Partner: When the amount due to the retiring partner or deceased partner is ascertained after all adjustments, it can be settled in any of the following ways:

a) Full payment in cash
b) The amount due may be treated as a loan to the firm and the firm may pay interest at a fixed rate according to the terms of agreement. But in the absence of an agreement the retiring partner or the executor of the deceased partner is entitled to interest @ 6% p.a. till the loan is paid off.

12.11 LET US SUM UP

In this unit we have discussed the following aspects–

- When a partner leave a partnership firm due to ill health, old age or any other reason, it is known as retirement of partner.
- A partner can retire–
    - with the consent of all partners;
    - as per an expressed agreement;
    - by serving notice in writing to all existing partners regarding his intension to retire.

- Matters requiring attention at the time of retirement or death–
  - Accounting treatment of goodwill;
  - Revaluation of assets and liabilities;
  - Sharing of profit or loss upto the date of retirement.
- After retirement or death, the existing partners share profit or loss in the new profit sharing ratio.
- Gaining ratio is that portion of the share of the retiring or deceased partner taken over by the continuing or remaining partners.
- Revaluation of assets and liabilities are done at the time of retirement or death of a partner.
- The share of the retiring or deceased partner is paid to the retiring partner or executor of the deceased partner either in cash or may be considered as a loan from the partner to the partnership firm.

12.12 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.

12.13 CHECK YOUR PROGRESS

Q.1: What is meant by retirement of a partner?

Q.2: X, Y and Z are partners in a firm who share profits and losses in the ratio of 2:2:1. Y retires and his share is acquired by X and Z equally. Calculate the new profit sharing ratio of X and Z.

Q.3: State any two differences between sacrific- ing ratio and gaining ratio.

12.14 ANSWER TO CHECK YOUR PROGRESS

Ans. to Q. No. 1: When a partner ceases to be partner in a firm due to his/her ill health, old age or any other reason it is known as retirement of a partner. In case of retirement, the retiring partner must serve a notice, at least six months before, to other partners of his intention of retirement. In case of retirement the existing partnership firm is legally dissolved and the remaining partners may agree to form a new partnership firm immediately after such retirement of the partner.

Ans. to Q. No. 2: X's gain $= \frac{2}{5} \times \frac{1}{2}$

$= \frac{2}{10} = \frac{1}{5}$

Z's gain $= \frac{2}{5} \times \frac{1}{2}$

$= \frac{2}{10} = \frac{1}{5}$

X's new share $= \frac{2}{5} + \frac{1}{5}$

$= \frac{2+1}{5} = \frac{3}{5}$

Z's new share $= \frac{1}{5} + \frac{1}{5}$

$= \frac{1+1}{5} = \frac{2}{5}$

$\therefore$ New Ratio of X and Z is 3 : 2

Ans. to Q. No. 3: i) Sacrificing ratio is the ratio in which the old partners agreed to sacrifice their share of profit in favour of incoming partner.

Gaining ratio is the ratio in which the remaining partners acquires the share of retired or deceased partner.

ii) Sacrificing ratio is calculated at the time of admission of a new partner. Gaining ratio is calculated at the time of retirement or death of an existing partner.

12.15 ASSIGNMENT

Q.1: Why the assets and liabilities revalued at the time of retirement or death of a partner?

Q.2: What is gaining ratio? How is it calculated of the time of retirement of a partner?

Q.3: A, B and C are partners sharing profits and losses as 4 : 3 : 2. A retires and his share is taken by B and C equally, Calculate the new profit sharing ratio and gaining ratio.

Q.4: P, Q and R are partners sharing profits equally. R retires. P took 2/3rd and Q took 1/3rd of R's share. Calculate the new profit sharing ratio and the gaining ratio.

Unit 13: Financial Statement Analysis

13

Unit Structure

13.1. Learning Objectives

13.2. INTRODUCTION TO RATIO ANALYSIS

13.3. Liquidity Ratios: Analyzing Short-term Cash Needs

13.4. Profitability Ratios: Analyzing Operating Activities

13.5. Leverage Ratios: Analyzing Financial Structure

13.6. Market Ratios: Analysis of Financial Returns to Investors

13.7. Overall Analysis of Big Dog's Financial Statements

13.8. Horizontal and Vertical Trend Analysis

13.9. Let us sum up

13.10. Check your progress

13.11. Answer to Check Your Progress

13.12. Further Reading

13.13. Assignment

13.1 LEARNING OBJECTIVES

After studying this unit you should be able to understand following:

- Describe ratio analysis, and explain how the liquidity, profitability, leverage, and market ratios are used to analyse and compare financial statements.
- Describe horizontal and vertical trend analysis, and explain how they are used to analyse financial statements.

13.2 INTRODUCTION TO RATIO ANALYSIS

A common way to evaluate financial statements is through **ratio analysis**. A *ratio* is a relationship between two numbers of the same kind. For example, if there are two apples and three oranges, the ratio of the number of apples to the number of oranges is 2:3 (read as “two to three”). A *financial ratio* is a measure of the relative magnitude of two selected numerical values taken from a company’s financial statements. For instance, the gross profit percentage studied in Chapter 6, also known as the gross profit ratio, expresses the numerical relationship between gross profit and sales. If a company has a gross profit ratio of 0.25:1, this means that for every $1 of sales, the company earns, on average, $0.25 to cover expenses other than cost of goods sold. Another way of stating this is to say that the gross profit ratio is 25%.[1]

Financial ratios are effective tools for measuring the financial performance of a company because they provide a common basis for evaluation — for instance, the amount of gross profit generated by each dollar of sales for different companies. Numbers that appear on financial statements need to be evaluated in context. It is their relationship to other numbers and the relative changes of these numbers that provide some insight into the financial health of a business. One of the main purposes of ratio analysis is to highlight areas that require further analysis and investigation. Ratio analysis alone will not provide a definitive financial evaluation. It is used as one analytic tool, which, when combined with informed judgment, offers insight into the financial performance of a business.

For example, one business may have a completely different product mix than

another company even though both operate in the same broad industry. To determine how well one company is doing relative to others, or to identify whether key indicators are changing, ratios are often com- pared to *industry averages*. To determine trends in one company's performance, ratios are often compared to past years' ratios of the same company.

To perform a comprehensive analysis, qualitative information about the company as well as ratios should be considered. For example, although a business may have sold hundreds of refrigerators last year and all of the key financial indicators suggest growth, qualitative information from trade publications and consumer reports may indicate that the trend will be towards refrigerators us- ing significantly different technologies in the next few years. If the company does not have the capacity or necessary equipment to produce these new appliances, the present positive financial indicators may not accurately reflect the likely future financial performance of the company.

An examination of qualitative factors provides valuable insights and contributes to the comprehensive analysis of a company. An important source of qualitative information is also found in the notes to the financial statements, which are an integral part of the company's financial statements.

In this chapter, financial ratios will be used to provide insights into the financial performance of Big Dog Carworks Corp. (BDCC). The ratios will focus on financial information contained within the income statement, statement of changes in equity, and balance sheet of BDCC for the three years 2019, 2020, and 2021. This information is shown below. Note that figures in these statements are reported in thousands of dollars (000s). ***For consistency, all final calculations in this chapter are rounded to two decimal places.***

Big Dog Carworks Corp.
Balance Sheet
At December 31
($000s)

	2021	2020	2019
Assets			
Current			
Cash	$ 20	$ 30	$ 50
Short-term Investments	36	31	37
Accounts Receivable	544	420	257
Inventories	833	503	361
	1,433	984	705
Property, Plant, and Equipment, net	1,053	1,128	712
Total Assets	$ 2,486	$ 2,112	$ 1,417
Liabilities			
Current			
Borrowings	$ 825	$ 570	$ 100
Accounts Payable	382	295	$ 219
Income Taxes Payable	48	52	$ 50
	1,255	917	369
Equity			
Share Capital	1,063	1,063	963
Retained Earnings	168	132	85
	1,231	1,195	1,048
Total Liabilities and Equity	$ 2,486	$ 2,112	$ 1,417

Big Dog Carworks Corp.
Income Statement
For the Year Ended December 31
($000s)

	2021	2020	2019
Sales (net)	$ 3,200	$ 2,800	$ 2,340
Cost of Goods Sold	2,500	2,150	1,800
Gross Profit	700	650	540
Operating Expenses			
Selling, General, and Administration	212	183	154
Employee Benefits	113	109	119
Depreciation	75	84	63
	400	376	336
Income from Operations	300	274	204
Financing Costs			
Interest	89	61	-0-
Income Before Income Taxes	211	213	204
Income Taxes	95	96	92
Net Income	$ 116	$ 117	$ 112

Big Dog Carworks Corp.
Statement of Changes in Equity
For the Year Ended December 31
($000s)

	2021			2020	2019
	Share Capital	*Retained Earnings*	*Total Equity*	*Total Equity*	*Total Equity*
Opening Balance	$1,063	$132	$1,195	$1,148	$143
Common Shares Issued					953
Net Income		116	116	117	112
Dividends Declared		(80)	(80)	(70)	(60)
Ending Balance	$1,063	$168	$1,231	$1,195	$1,148

Assume that 100,000 common shares are outstanding at the end of 2019, 2020, and 2021.

There are four major types of financial ratios: a) *liquidity ratios* that measure the ability of a corporation to satisfy demands for cash as they arise in the near-term (such as payment of current liabilities); b) *profitability ratios* that measure various levels of return on sales, total assets employed, and shareholder investment; c) *leverage ratios* that measure the financial structure of a corporation, its amount of relative debt, and its ability to cover interest expense; and d) *market ratios* that measure financial returns to shareholders, and perceptions of the stock market about the corporation's value.

Initial insights into the financial performance of BDCC can be derived from an analysis of relative amounts of current and non-current debt. This analysis is addressed in the following sections.

13.3 Liquidity Ratios: Analyzing Short-term Cash Needs

Current (Short-term) versus Non-current (Long-term) Debt

Short-term and long-term financing strategies both have their advantages. The advantage of some short-term debt (repayable within one year of the balance sheet date) is that it often does not require interest payments to creditors. For example, accounts payable may not require payment of interest if they are paid within the first 30 days they are outstanding. Short-term debt also has its disadvantages; payment is required within at least one year, and often sooner. Interest rates on short-term debt are often higher than on long-term debt. An increase in the proportion of short-term debt is more risky because it must be renewed and therefore renegotiated more frequently.

The advantages of long-term debt are that payment may be made over an extended period of time. Risk may be somewhat reduced through the use of a formal contractual agreement that is often lacking with short-term debt. The disadvantages of long-term debt are that interest payments must be made at specified times and the amounts owing may be secured by assets of the company.

Analyzing Financial Structure

As a general rule, long-term financing should be used to finance long-term assets. Note that in BDCC's case, property, plant, and equipment assets amount to $1,053,000 at December 31, 2021 yet the firm has no long-term liabilities. This is unusual. An analysis of the company's balance sheet reveals the following:

		(000s)	
	2021	*2020*	*2019*
Current Liabilities	$1,255	$917	$369
Non-current Liabilities	-0-	-0-	-0-

2021 information indicates that BDCC's management relies solely on short-term creditor financ- ing, part of which is $382,000 of accounts payable that may bear no interest and $825,000 of borrowings that also need to be repaid within one year. The risk is that management will likely need to replace current liabilities with new liabilities. If creditors become unwilling to do this, the ability of BDCC to pay its short-term creditors may be compromised. As a result, the company may experience a liquidity crisis — the inability to pay its current liabilities as they come due. The ratios used to evaluate liquidity of a corporation are discussed below.

Even though a company may be earning net income each year (as in BDCC's case), it may still be unable to pay its current liabilities as needed because of a shortage of cash. This can trigger various problems related to current and non-current liabilities and equity.

Current Liabilities

- Creditors can refuse to provide any further goods or services on account.
- Creditors can sue for payment.
- Creditors can put the company into receivership or bankruptcy.

Non-current Liabilities

- Long-term creditors can refuse to lend additional cash.
- Creditors can demand repayment of their long-term debts, under some circumstances.

Equity

- Shareholders may be unwilling to invest in additional share capital of the company.
- Shareholders risk the loss of their investments if the company declares bankruptcy.

There are several ratios that can be used to analyze the liquidity of a company.

Working Capital

Working capital is the difference between a company's current assets and current liabilities at a point in time. BDCC's working capital calculation is as follows:

	(000s)		
	2021	*2020*	*2019*
Current Assets			
Cash	$ 20	$ 30	$ 50
Short-term Investments	36	31	37
Accounts Receivable	544	420	257
Inventories	833	503	361
Total Current Assets (a)	1,433	984	705
Current Liabilities			
Borrowings	825	570	100

Accounts Payable	382	295	219
Income Taxes Payable	48	52	50
Total Current Liabilities (b)	1,255	917	369
Net Working Capital (a-b)	$ 178	$ 67	$ 336

In the schedule above, working capital amounts to $178,000 at December 31, 2021. Between 2019 and 2021, working capital decreased by $158,000 ($336,000 – 178,000). BDCC is less liquid in 2021 than in 2019, though its liquidity position has improved since 2020 when it was only $67,000.

In addition to calculating an absolute amount of working capital, ratio analysis can also be used. The advantage of a ratio is that it is usually easier to interpret.

Current Ratio

Is BDCC able to repay short-term creditors? The **current ratio** can help answer this question. It expresses working capital as a proportion of current assets to current liabilities and is calculated as:

$$\frac{\text{Current assets}}{\text{Current liabilities}}$$

The relevant BDCC financial data required to calculate this ratio is taken from the balance sheet, as follows:

		(000s)		
		2021	*2020*	*2019*
Current Assets	(a)	$1,433	$984	$705
Current Liabilities	(b)	1,255	917	369
Current Ratio	(a/b)	1.14:1	1.07:1	1.91:1

This ratio indicates how many current asset dollars are available to pay current liabilities at a point in time. The expression “1.14:1” is read, “1.14 to 1.” In this case

it means that at December 31, 2021, $1.14 of current assets exist to pay each $1 of current liabilities. This ratio is difficult to interpret in isolation. There are two types of additional information that could help. First, what is the trend within BDCC over the last three years? The ratio declined between 2019 and 2020 (from 1.91 to 1.07), then recovered slightly between the end of 2020 and 2021 (from 1.07 to 1.14). The overall decline may be a cause for concern, as it indicates that in 2021 BDCC had fewer current assets to satisfy current liabilities as they became due.

A second interpretation aid would be to compare BDCC's current ratio to a similar company or that of BDCC's industry as a whole. Information is available from various trade publications and business analysts' websites that assemble financial ratio information for a wide range of industries.

Some analysts consider that a corporation should maintain a 2:1 current ratio, depending on the industry in which the firm operates. The reasoning is that, if there were $2 of current assets to pay each $1 of current liabilities, the company should still be able to pay its current liabilities as they become due, even in the event of a business downturn. However, it is recognized that no one current ratio is applicable to all entities; other factors — such as the composition of current assets — must also be considered to arrive at an acceptable ratio. This is illustrated below.

Composition of Specific Items in Current Assets

In the following example, both Corporation A and Corporation B have a 2:1 current ratio. Are the companies equally able to repay their short-term creditors?

	Corp. A	*Corp. B*
Current Assets		
Cash	$ 1,000	$ 10,000
Accounts Receivable	2,000	20,000
Inventories	37,000	10,000
Total Current Assets	$ 40,000	$ 40,000
Current Liabilities	$ 20,000	$ 20,000
Current Ratio	2:1	2:1

The companies have the same dollar amounts of current assets and current liabilities. However, they have different short-term debt paying abilities because

Corporation B has more liquid current assets than does Corporation A. Corporation B has less inventory ($10,000 vs. $37,000) and more in cash and accounts receivable. If Corporation A needed more cash to pay short-term creditors quickly, it would have to sell inventory, likely at a lower-than-normal gross profit. So, Corporation B is in a better position to repay short-term creditors.

Since the current ratio doesn't consider the components of current assets, it is only a rough in- dicator of a company's ability to pay its debts as they become due. This weakness of the current ratio is partly remedied by the acid-test ratio discussed below.

Acid-Test Ratio

A more rigid test of liquidity is provided by the **acid-test ratio**; also called the **quick ratio**. To calculate this ratio, current assets are separated into *quick* current assets and *non-quick* current assets.

Quick Current Assets

Cash
Short-term investments
Accounts Receivable

} These current assets are considered to be readily convertible into cash.

Non-quick Current Assets

Inventories
Prepaid Expenses

} Cash cannot be obtained either at all or easily from these current assets.

Inventory and prepaid expenses cannot be converted into cash in a short period of time, if at all. Therefore, they are excluded in the calculation of this ratio. The acid-test ratio is calculated as:

$$\frac{\text{Quick current assets}}{\text{Current liabilities}}$$

The BDCC information required to calculate this ratio is:

		(000s)		
		2021	*2020*	*2019*
Cash		$ 20	$ 30	$ 50
Short-term investments		36	31	37
Accounts receivable		544	420	257
Quick current assets	(a)	$ 600	$ 481	$ 344
Current liabilities	(b)	$ 1,255	$ 917	$ 369
Acid-test ratio	(a/b)	0.48:1	0.52:1	0.93:1

This ratio indicates how many quick asset dollars exist to pay each dollar of current liabilities. What is an adequate acid-test ratio? It is generally considered that a 1:1 acid test ratio is adequate to ensure that a firm will be able to pay its current obligations. However, this is a fairly arbitrary guideline and is not appropriate in all situations. A lower ratio than 1:1 can often be found in successful companies. However, BDCC's acid-test ratio trend is worrisome.

There were $0.48 of quick assets available to pay each $1 of current liabilities in 2021. This amount appears inadequate. In 2020, the acid-test ratio of $0.52 also seems to be too low. The 2019 ratio of $0.93 is less than 1:1 but may be reasonable. Of particular concern to financial analysts would be BDCC's declining trend of the acid-test ratio over the three years.

Additional analysis can also be performed to determine the source of liquidity issues. These are discussed next.

Accounts Receivable Collection Period

Liquidity is affected by management decisions related to trade accounts receivable. Slow collection of receivables can result in a shortage of cash to pay current obligations. The effectiveness of management decisions relating to receivables can be analyzed by calculating the *accounts receivable collection period.*

The calculation of the **accounts receivable collection period** establishes the average number of days needed to collect an amount due to the company. It indicates the efficiency of collection procedures when the collection period is compared with the firm's sales terms (in BDCC's case, the sales terms are *net 30*

meaning that amounts are due within 30 days of the invoice date).

The accounts receivable collection period is calculated as:

$$\frac{\text{Average net accounts receivable}^{2}}{\text{Net credit sales (or revenues)}} \times 365$$

The BDCC financial information required to make the calculation is shown below (the 2019 calculation cannot be made because 2018 Accounts Receivable amount is not available). Assume all of BDCC's sales are on credit.

		(000s)	
		2021	*2020*
Net credit sales	(a)	$3,200	$2,800
Average accounts receivable [(Opening balance + closing balance)/2]	(b)	$ 482[3]	$ 338.5[4]
Average collection period [(b/a) × 365 days]		54.98 days	44.13 days

When Big Dog's 30-day sales terms are compared to the 54.98-day collection period, it can be seen that an average 24.98 days of sales (54.98 days – 30 days) have gone uncollected beyond the regular credit period in 2021. The collection period in 2021 is increasing compared to 2020. Therefore, some over-extension of credit and possibly ineffective collection procedures are indicated by this ratio. Quicker collection would improve BDCC's cash position. It may be that older or uncollectible amounts are buried in the total amount of receivables; this would have to be investigated.

Whether the increase in collection period is good or bad depends on several factors. For instance, more liberal credit terms may generate more sales (and therefore profits). The root causes of the change in the ratio need to be investigated. However, the calculation does provide an indication of the change in effectiveness of credit and collection procedures between 2020 and 2021.

Number of Days of Sales in Inventory

The effectiveness of management decisions relating to inventory can be analyzed by calculating the number of days of sales that can be serviced by existing inventory levels.

The **number of days of sales in inventory** is calculated by dividing average inventory by the cost of goods sold and multiplying the result by 365 days.

$$\frac{\text{Average merchandise inventory}}{\text{Cost of goods sold}} \times 365$$

The BDCC financial data for 2020 and 2021 required to calculate this ratio are shown below.

		(000s)	
		2021	*2020*
Cost of goods sold	(a)	$2,500	$2,150
Average inventory [(Opening balance + closing balance)/2]	(b)	$ 668[5]	$ 432[6]
Cost of goods sold		365	365
Number of days sales in inventory [(b/a) × 365 days]		97.53 days	73.34 days

The calculation indicates that BDCC is investing more in inventory in 2021 than in 2020 because there are 97.53 days of sales in inventory in 2021 versus 73.34 days in 2020. BDCC has approximately 3 months of sales with its existing inventory (98 days represents about 3 months). The increase from 2020 to 2021 may warrant investigation into its causes.

A declining number of days of sales in inventory is usually a sign of good inventory management because it indicates that the average amount of assets tied up in inventory is lessening. With lower inventory levels, inventory-related expenses such as rent and insurance are lower because less storage space is often required. However, lower inventory levels can have negative consequences since items that customers want to purchase may not be in inventory resulting in lost sales.

Increasing days of sales in inventory is usually a sign of poor inventory management because an excessive investment in inventory ties up cash that could be used for other purposes. Increasing there can be shorter delivery time to customers if more items are in stock.

Whether Big Dog's increasing days of sales in inventory is positive or negative depends on man- agement's objectives. Is management increasing inventory to provide for increased sales in the next year, or is inventory being poorly

managed? Remember that ratio analyses identify areas that require investigation. The resulting investigation will guide any required action.

The Revenue Portion of the Operating Cycle

As discussed in Chapter 4, the sale of inventory and resulting collection of receivables are part of a business's operating cycle as shown in Figure 13.1.

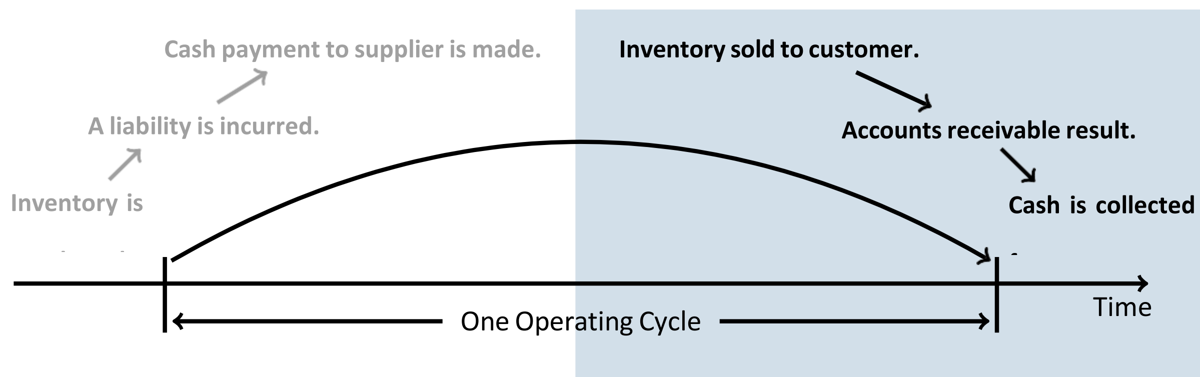


Figure 13 .1: Sales and Collection Portion of the Operating Cycle

A business's **revenue operating cycle** is a subset of the operating cycle and includes the purchase of inventory, the sale of inventory and creation of an account receivable, and the generation of cash when the receivable is collected. The length of time it takes BDCC to complete one revenue operating cycle is an important measure of liquidity and can be calculated by adding the number of days of sales in inventory plus the number of days it takes to collect receivables. The BDCC financial data required for this calculation follows.

	2021	*2020*
Average number of days of sales in inventory	97.53 days	73.34 days
Average number of days to collect receivables	54.98 days	44.13 days
Number of days to complete the revenue cycle	152.51 days	117.47 days

In 2021, 152.51 days were required to complete the revenue cycle, compared to 117.47 days in levels may indicate that inventory is becoming obsolete (consider clothing) or deteriorating (con- sider perishable groceries). Obsolete and/or deteriorating inventories may be unsalable. How- ever, the possible positive aspect of more days of sales in inventory is that 2020. So, if accounts payable terms require payment within 60 days, BDCC may not be able to pay them because the number of days to complete the revenue cycle for both 2020 (117.47 days) and 2021 (152.51 days) are significantly greater than 60 days.

Analysis of BDCC's Liquidity

Reflecting on the results of all the liquidity ratios, it appears that Big Dog Carworks Corp. is growing less liquid. Current assets, especially quick assets, are declining relative to current liabilities. The revenue operating cycle is increasing.

13.4 Profitability Ratios: Analyzing Operating Activities

Profitability ratios compare various expenses to revenues, and measure how well the assets of a corporation have been used to generate revenue.

Gross Profit Ratio

The **gross profit ratio**, as introduced briefly in Chapter 6, indicates the percentage of sales revenue that is left to pay operating expenses, creditor interest, and income taxes after deducting cost of goods sold. The ratio is calculated as:

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

BDCC's gross profit ratios for the three years are:

		(000s)		
		2021	2020	2019
Gross profit	(a)	$ 700	$ 650	$ 540
Net sales	(b)	$ 3,200	$ 2,800	$ 2,340
Gross profit ratio	(a/b)	0.2188:1 or 21.88%	0.2321:1 or 23.21%	0.2308:1 or or 23.08%

In other words, for each dollar of sales BDCC has $0.22 of gross profit left to cover operating, interest, and income tax expenses ($0.23 in each of 2020 and 2019). The ratio has not changed significantly from year to year. However, even a small decline in this percentage can affect net income significantly because the gross profit is such a large component of the income statement. Changes in the gross profit ratio should be investigated, as it will impact future financial perfor- mance.

Operating Profit Ratio

The **operating profit ratio** is one measure of relative change in these other expenses. This ratio indicates the percentage of sales revenue left to cover interest and income taxes expenses after deducting cost of goods sold and operating expenses. In other words:

$$\frac{\text{Income from operations}}{\text{Net sales}} \quad OR \quad \frac{\text{Income from operations}}{\text{Net sales}} \times 100$$

BDCC's operating profit ratio for the 2019, 2020, and 2021 fiscal years is calculated as follows

		(000s)		
		2021	2020	2019
Income from operations	(a)	$ 300	$ 274	$ 204
Net sales	(b)	$ 3,200	$ 2,800	$ 2,340
Operating profit ratio	(a/b)	0.0938:1 or 9.38%	0.0979:1 or 9.79%	0.0872:1 or or 8.72%

For each dollar of sales revenue in 2021, the company had $0.09 left to cover interest and income tax expenses after deducting cost of goods sold and operating

expenses. A review of the com- pany's operating expenses (selling, general, and administrative expenses; employee benefits, and depreciation) show that they have all increased. As a result, and despite increasing sales revenue and gross profit, operating income has remained relatively flat. Although it seems reasonable that an increase in operating expenses would follow an increase in sales, the reasons for the operating expense increases should be investigated.

Net Profit Ratio

The **net profit ratio** is the percentage of sales revenue retained by the company after payment of operating expenses, interest expenses, and income taxes. It is an index of performance that can be used to compare the company to others in the same industry. This ratio is calculated by the following formula:

$$\frac{\text{Net income}}{\text{Net sales (or revenues)}} \quad OR \quad \frac{\text{Net income}}{\text{Net sales (or revenues)}} \times 100$$

BDCC's net profit ratios for the three years are calculated as follows:

		(000s)		
		2021	*2020*	*2019*
Net income	(a)	$ 116	$ 117	$ 112
Net sales	(b)	$ 3,200	$ 2,800	$ 2,340
Net profit ratio	(a/b)	0.0363:1 or 3.63%	0.418:1 or 4.18%	0.0479:1 or or 4.79%

For each $1 of sales in 2021, BDCC earned $0.04 of net income. The net profit ratio has been relatively stable but needs to be compared with industry or competitors' averages for a better perspective.

Recall that revenues are generated from a business's asset holdings. The financial strength and success of a corporation depends on the efficient use of these assets. An analysis of asset investment decisions can be made by calculating several ratios, and is discussed next.

Sales to Total Assets Ratio

Are BDCC's sales adequate in relation to its assets? The calculation of the sales to total assets ratio helps to answer this question by establishing the number of sales dollars earned for each dollar invested in assets. The ratio is calculated as:

$$\frac{\text{Net sales}}{\text{Average total assets}} \quad OR \quad \frac{\text{Net sales}}{\text{Average total assets}} \times 100$$

BDCC's ratios are calculated as follows:

		(000s)	
		2021	***2020***
Net sales	(a)	$ 3,200	$ 2,800
Average total assets	(b)	$ 2,299[7]	$ 1,764.50[8]
Sales to total assets ratio	(a/b)	1.3919:1 or 139.19%	1.5869:1 or 158.69%

The ratio has decreased from 2020 to 2021. Each $1 of investment in assets in 2020 generated sales of $1.59. In 2021, each $1 of investment in assets generated only $1.39 in sales. Over the same period, BDCC's investment in assets increased. The ratios indicate that the additional assets are not producing revenue as effectively as in the past. It may be too soon to tell whether the increase in assets in 2020 will eventually create greater sales but an investigation is required.

As noted earlier, comparison with industry averages would be useful. A low ratio in relation to other companies in the same industry may indicate an over-investment in or inefficient use of assets by BDCC. On the other hand, a higher ratio in comparison to other companies would be a positive indicator.

Return on Total Assets Ratio (ROA)

The return on total assets ratio or ROA is designed to measure the efficiency with which all of a company's assets are used to produce income from operations. The ratio is calculated as:

$$\frac{\text{Income from operations}}{\text{Average total assets}} \; OR \; \frac{\text{Income from operations}}{\text{Average total assets}} \times 100$$

Note that expenses needed to finance the company operations are excluded from the calculation, specifically interest and income taxes. This is because all the assets of the company are considered in the ratio's denominator, whether financed by investors or creditors. Average Total Assets are used in the calculation because the amount of assets used likely varies during the year. The use of averages tends to smooth out such fluctuations.

BDCC's returns on total assets for 2020 and 2021 are calculated as follows:

		(000s)	
		2021	***2020***
Income from operations	(a)	$ 300	$ 274
Average total assets	(b)	$ 2,299[9]	$ 1,764.50[10]
Return on total assets ratio	(a/b)	0.1305:1 or 13.05%	0.1553:1 or 15.53%

The ratios indicate that Big Dog earned $0.13 of income from operations for every $1 of average total assets in 2021, a decrease from $0.16 per $1 in 2020. This downward trend indicates that assets are being used less efficiently. However, it may be that the increased investment in assets has not yet begun to pay off. On the other hand, although sales are increasing, it is possible that future sales volume will not be sufficient to justify the increase in assets. More information about the company's plans and projections would be useful. Recall that ratio analysis promotes the asking of directed questions for the purpose of more informed decision making.

Return on Equity Ratio (ROE)

The return on equity ratio measures the return to shareholders — how much net income was earned for the owners of a business. It is calculated as:

$$\frac{\text{Net income}}{\text{Average equity}} \; OR \; \frac{\text{Net income}}{\text{Average equity}} \times 100$$

The 2020 and 2021 returns on equity ratios for BDCC are calculated as follows (note that the 2019 ratio is excluded because average equity cannot be calculated since 2018 ending balances are not provided):

		(000s)	
		2021	***2020***
Net income	(a)	$ 116	$ 117
Average equity	(b)	$ 1,213[11]	$ 1,121.50[12]
Return on equity ratio	(a/b)	0.0956:1 or 9.56%	0.1043:1 or 10.43%

In both years, shareholders earned, on average, $0.10 for every $1 invested in BDCC, or 10%. Industry averages could help with this analysis. For instance, if the industry as a whole earned only a 5% return on equity in 2021, it could be concluded that BDCC performed better than the industry average in terms of return on equity.

13. 5 Leverage Ratios: Analyzing Financial Structure

The accounting equation expresses a relationship between assets owned by an entity and the claims against those assets. Although shareholders own a corporation, they alone do not finance the corporation; creditors also finance some of its activities. Together, creditor and shareholder capital are said to form the financial structure Financial structure of a corporation. At December 31, 2021, the balance sheet of BDCC shows the following financial structure:

ASSETS	=	LIABILITIES	+	EQUITY
$2,486	=	$1,255	+	$1,231

Debt Ratio

The proportion of total assets financed by debt is called the debt ratio, and is calculated by dividing total liabilities by total assets.

$$\frac{\text{Total liabilities}}{\text{Total assets}} \quad OR \quad \frac{\text{Total liabilities}}{\text{Total assets}} \times 100$$

In BDCC's case, these amounts are:

		(000s)	
		2021	2020
Total liabilities	(a)	$ 1,255	$ 917
Total assets	(b)	$ 2,486	$ 2,112
Debt ratio	(a/b)	0.5048:1 or 50.48%	0.4342:1 or 43.42%

In other words, 50.48% of BDCC's assets are financed by debt. Therefore, because assets are financed by debt (aka liabilities) and equity, we intuitively know that 49.52% of BDCC's assets must be financed by equity which is the topic of the next section.

Equity Ratio

The proportion of total assets financed by equity is called the equity ratio, and is calculated by dividing total equity by total assets. In BDCC's case, these amounts are:

		(000s)	
		2021	2020
Total equity	(a)	$ 1,231	$ 1,195
Total assets	(b)	$ 2,486	$ 2,112
Equity ratio	(a/b)	0.4952:1 or 49.52%	0.5658:1 or 56.58%

In 2021, 49.52% of the assets were financed by equity while in 2020 56.58% of the assets were financed by equity. Generally, this is considered an unfavourable trend because as equity financing decreases, we know that debt financing must be increasing as evidenced by the debt ratio above. The greater the debt financing, the greater the risk because principal and interest payments are part of debt financing.

Notice that the sum of the debt and equity ratios will always equal 100% because of the accounting equation relationship: A = L + E where A = 100% and, in the case of BDCC, L = 43.42% in 2020 and E = 56.58% in 2020.

Debt to Equity Ratio

The proportion of creditor to shareholders' claims is called the debt to equity ratio, and is calculated by dividing total liabilities by equity. In BDCC's case, these amounts are:

		(000s)		
		2021	***2020***	***2019***
Total liabilities	(a)	$ 1,255	$ 917	$ 369
Equity	(b)	$ 1,231	$ 1,195	$ 1,048
Debt to equity ratio	(a/b)	1.02:1	0.77:1	0.35:1

In other words, BDCC has $1.02 of liabilities for each dollar of equity at the end of its current fiscal year, 2021. The proportion of debt financing has been increasing since 2019. In 2019 there was only $0.35 of debt for each $1 of equity. In 2021, creditors are financing a greater proportion of BDCC than are shareholders. This may be a cause for concern.

On the one hand, management's reliance on creditor financing is good. Issuing additional shares might require existing shareholders to give up some of their control of BDCC. Creditor financing may also be more financially attractive to existing shareholders if it enables BDCC to earn more with the borrowed funds than the interest paid on the debt.

On the other hand, management's increasing reliance on creditor financing increases risk because interest and principal have to be paid on this debt. Before deciding to extend credit, creditors often look at the total debt load of a company, and therefore the company's ability to meet interest and principal payments in the future. Total earnings of BDCC could be reduced if high interest payments have to be made, especially if interest rates rise. Creditors are interested in a secure investment and may evaluate shareholder commitment by measuring relative amounts of capital invested. From the creditors' perspective, the more capital invested by owners of the company, the greater the relative risk assumed by shareholders thus decreasing risk to creditors.

Although there is no single most appropriate debt to equity ratio, there are techniques for esti- mating the optimum balance. These are beyond the scope of introductory financial accounting. For now, it is sufficient to note that for BDCC the debt to equity ratio has increased considerably over the three-year period which is generally unfavourable because of the risk associated with debt financing.

Times Interest Earned Ratio

Creditors are interested in evaluating a company's financial performance, in order to project whether the firm will be able to pay interest on borrowed funds and repay the debt when it comes due. Creditors are therefore interested in measures such as the times interest earned ratio. This ratio indicates the amount by which income from operations could decline before a default on interest may result. The ratio is calculated by the following formula:

$$\frac{\text{Income from operations}}{\text{Interest expense}}$$

Note that income from operations is used, so that income before deduction of creditor payments in the form of income taxes and interest is incorporated into the calculation. BDCC's 2020 and 2021 ratios are calculated as follows:

			(000s)	
		2021	***2020***	***2019***
Income from operations	(a)	$ 300	$ 274	$ 204
Interest expense	(b)	$ 89	$ 61	-0-
Times interest earned ratio	(a/b)	3.37:1	4.49:1	n/a

The larger the ratio, the better creditors are protected. BDCC's interest coverage has decreased from 2020 to 2021 (3.37 times vs. 4.49 times), but income would still need to decrease significantly for the company to be unable to pay its obligations to creditors. The analysis does indicate, though, that over the past two years interest charges have increased compared to income from operations. Creditors need to assess company plans and projections, particularly those affecting income from operations, to determine whether their loans to the company are at risk. As discussed above, it may be that significant investments in assets have not yet generated related increases in sales and income from operations.

13.6 Market Ratios: Analysis of Financial Returns to Investors

Investors frequently consider whether to invest or divest in shares of a corporation. There are various ratios that help them make this decision. These are called market ratios, because the stock market plays an important role in allocating financial resources to corporations that offer their shares to the public.

Earnings-per-Share (EPS)

Measures of efficiency can focus on shareholder returns on a per-share basis. That is, the amount of net income earned in a year can be divided by the number of common shares outstanding to establish how much return has been earned for each outstanding share. This earnings-per-share (EPS) value is calculated as

$$\frac{\text{Net income}}{\text{Number of common shares outstanding}}$$

EPS is quoted in financial markets and is disclosed on the income statement of publicly-traded companies. If there are preferred shareholders, they have first rights to distribution of dividends.

Therefore, when calculating EPS, preferred shareholders' claims on net income are deducted from net income to calculate the amount available for common shareholders:

$$\frac{\text{Net income} - \text{preferred share dividends}}{\text{Number of common shares outstanding}}$$

BDCC has no preferred shares and thus no preferred share dividends. Recall that 100,000 common shares are outstanding at the end of 2019, 2020, and 2021. For BDCC, EPS calculations for the three years are:

			(000s)	
		2021	***2020***	***2019***
Net income	(a)	$ 116	$ 117	$ 112
Number of common shares outstanding	(b)	100	100	100
Earnings per share	(a/b)	$ 1.16	$ 1.17	$ 1.12

Big Dog's EPS has remained relatively constant over the three-year period

because both net in- come and number of outstanding shares have remained fairly stable. Increasing sales levels and the resulting positive effects on net income, combined with unchanged common shares issued, has generally accounted for the slight increase from 2019 to 2020.

Price-earnings (P/E) Ratio

A price at which a common share trades on a stock market is perhaps the most important measure of a company's financial performance. The market price of one share reflects the opinions of investors about a company's future value compared to alternative investments.

The earnings performance of common shares is often expressed as a price-earnings (P/E) ratio. Price-earnings (P/E) ratio It is calculated as:

$$\frac{\text{Market price per share}}{\text{Earnings per share}}$$

This ratio is used as an indicator of the market's expectation of a company's future performance. Assume Company A has a current market value of $15 per share and an EPS of $1 per share. It will have a P/E ratio of 15. If Company B has a market value of $4 per share and an EPS of $0.50 per share, it will have a P/E ratio of 8. This means that the stock market expects Company A to earn relatively more in the future than Company B. For every $1 of net income generated by Company A, investors are willing to invest $15. In comparison, for every $1 of net income generated by Company B, investors are willing to pay only $8. Investors perceive shares of Company A as more valuable because the company is expected to earn greater returns in the future than is Company B.

Assume that BDCC's average market price per common share was $4 in 2019, $5 in 2020, and $6 in 2021. Its P/E ratio would be calculated as:

			(000s)	
		2021	***2020***	***2019***
Market price per common share	(a)	$ 6.00	$ 5.00	$ 4.00
Earnings per share (see above)	(b)	$ 1.16	$ 1.17	$ 1.12
Price-earnings ratio	(a/b)	5.17	4.27	3.57

BDCC's P/E ratio has increased each year. Although industry and competitor's P/E ratio comparisons would be important to compare, BDCC's increasingly positive ratio also indicates that investors are "bullish" on BDCC. That is, the stock market indicates that it expects BDCC to be increasingly profitable in the coming years. Despite a relatively constant EPS ratio from 2019 to 2021, investors are willing to pay more and more for the company's common shares. This must be because future financial prospects are anticipated to be better than in the past three years.

Dividend Yield

Some investors' primary objective is to maximize dividend revenue from share investments, rather than realize an increasing market price of the shares. This type of investor is interested in information about the earnings available for distribution to shareholders and the actual amount of cash paid out as dividends rather than the market price of the shares.

The dividend yield ratio is a means to determine this. It is calculated as:

$$\frac{\text{Dividends per share}}{\text{Market price per share}}$$

This ratio indicates how large a return in the form of dividends can be expected from an investment in a company's shares. The relevant information for BDCC over the last three years is shown in the financial statements, as follows:

		(000s – except per share values)		
		2021	*2020*	*2019*
Dividends declared	(a)	$ 80	$ 70	$ 60
Outstanding common shares	(b)	100	100	100
Dividends per share	(a/b)	$ 0.80	$ 0.70	$ 0.60

The dividend yield ratio is therefore:

		2021	2020	2019
Dividends per share	(a)	$ 0.80	$ 0.70	$ 0.60
Market price per share (given)	(b)	$ 6.00	$ 5.00	$ 4.00
Dividend yield ratio	(a/b)	0.13:1	0.14:1	0.15:1

The company's dividend yield ratio decreased from 2019 to 2021. In 2019, investors received $0.15 for every $1 invested in shares. By 2021, this had decreased to $0.13 for every $1 invested. Though the decline is slight, the trend may concern investors who seek steady cash returns. Also notice that total dividends declared increased from 2019 to 2021 even though net income did not substantially increase, and despite the company's poor liquidity position noted in an earlier analysis. Investors might ask why such high levels of dividends are being paid given this situation.

13.7 Overall Analysis of Big Dog's Financial Statements

Results of ratio analysis are always more useful if accompanied by other information such as overall industry performance, the general economy, financial ratios of prior years, and qualitative factors such as analysts' opinions and management's plans.

However, there are some interpretations that can be made about BDCC from the foregoing ratio analyses even without other information. Although BDCC is experiencing growth in sales, net in- come has not substantially increased over the three-year period 2019 to 2021. The gross profit ratio is relatively constant. Their increasing operating expenses appear to be an issue. The sales to total assets and return on assets ratios have decreased due to a recent investment in property, plant and equipment assets and growth in current assets. Income from operations has not in- creased with the growth in the asset base. However, it may be premature to make conclusions regarding the timing of outlays for property, plant, and equipment.

The most immediate problem facing BDCC is the shortage of working capital and its poor liquidity. BDCC expanded its property, plant, and equipment in 2020 and experienced increases in revenue that did not correspond to increases in accounts receivable and inventories. The company should therefore review its credit policies and monitor its investment in inventory to ensure that these expand in proportion to sales.

The plant expansion produced an increase in current liabilities (mainly borrowings). The com- pany's ability to meet its debt obligations appears to be deteriorating. The ability of income from operations to cover interest expense has declined. The company's liquidity position is deteriorating, even though it continues to produce net income each year. BDCC should investigate alternatives to short-term borrowings, such as converting some of this to long-term debt and/or issuing additional share capital to retire some of its short-term debt obligations.

Despite these challenges, the stock market indicates that it expects BDCC to be increasingly prof- itable in the future. Perhaps it views the negative indicators noted above as only temporary or easily rectified by management.

The next section provides further insights into BDCC's operations through trend analysis of the company's financial statements.

13.8 Horizontal and Vertical Trend Analysis

Trend analysis is the evaluation of financial performance based on a re- statement of financial statement dollar amounts to percentages. Horizon- tal analysis and vertical analysis are two types of trend analyses.

Horizontal analysis involves the calculation of percentage changes from one or more years over the base year dollar amount. The base year is typically the oldest year and is always 100%. The following two examples of horizontal analysis use an abbreviated income statement and balance sheet information where 2019 represents the base year. ***For demonstration*** purposes, the percentages have been rounded to the nearest whole number.

	2021		2020		2019	
Sales[1]	$100	200%	$70	140%	$50	100%
Gross profit	$ 48	160%	$45	150%	$30	100%
Net income	$ 14	140%	$12	120%	$10	100%

1. Sales in 2020 were 140% of 2019 sales calculated as ($70/$50)x100. Sales in 2021 were 200% of 2019 sales calculated as ($100/$50)x100.

	2021		2020		2019	
Current assets[2]	$ 18	90%	$ 22	110%	$ 20	100%
Long-term investments	$ -0-	N/A	$ 48	60%	$ 80	100%
Total assets	$252	105%	$228	95%	$240	100%

2. Current assets in 2020 were 110% of 2019 current assets calculated as ($22/$20)x100. Current assets in 2021 were 90% of 2019 current assets calculated as ($18/$20)x100.

An alternate method of performing horizontal analysis calculations is to simply calculate the percentage change between two years as shown in the following example.

	2021	% Change	2020
Sales[3]	$100	43%	$70
Gross profit	$ 48	7%	$45
Net income	$ 14	17%	$12

3. Sales in 2021 increased 43% over 2020 calculated as ($100–$70)–$30; ($30/$70)x100=43%.

Vertical analysis requires numbers in a financial statement to be restated as percentages of a base dollar amount. For income statement analysis, the base amount used is sales. For balance sheet analysis, total assets, or total liabilities and equity, are used as the base amounts. When financial statements are converted to percentages, they are called common-size financial statements. The following two examples of vertical analysis use information from an abbreviated income statement and balance sheet.

	2021		2020		2019[1]	
Sales	$100	100%	$70	100%	$50	100%
Gross profit	$ 48	48%	$45	64%	$30	60%
Net income	$ 14	14%	$12	17%	$10	20%

1. 2019 Gross profit was 60% of Sales calculated as ($30/$50)x100; 2019 Net income was 20% of Sales calculated as ($10/$50)x100.

	2021		2020		2019[2]	
Current assets	$ 18	7%	$ 22	10%	$ 20	8%
Long-term investments	$ -0-	N/A	$ 48	21%	$ 80	33%
Total assets	$252	100%	$228	100%	$240	100%

2. 2019 Current assets were 8% of Total assets calculated as ($20/$240)x100. 2019 Long-term investments were 33% of Total assets calculated as ($80/$240)x100.

Notice that the same information was used for both the horizontal and vertical analyses examples but that the results are different because of how the dollar amounts are being compared.

Horizontal and vertical analyses of the balance sheets of Big Dog Carworks Corp. are as follows:

Horizontal Analysis: Balance Sheet

	2021	2020	Change: Difference	Change: Per Cent
Current assets	$1,433 (a)	$ 984 (b)	+$449 (a-b)	+45.6 [(a-b)/b]
PPE assets	1,053	1,128	-75	-6.6
Total	$2,486	$2,112 (c)	+$374	+17.7
Current liabilities	$1,255	$917	+$338	+36.9
Equity	1,231	1,195	+36	+3.0
Total	$2,486	$2,112	+$374	+17.7

Vertical Analysis (Common-size): Balance

	% 2021	% 2020
Current assets	57.6	46.6 (b/c)
PPE assets	42.4	53.4
Total	100.0	100.0
Current liabilities	50.5	43.4
Equity	49.5	56.6
Total	100.0	100.0

Notice the two columns introduced here. Analysis of the changes indicates a large increase in current assets (45.6%) together with a large increase in current liabilities (36.9%). There was a small decline in PPE assets (6.6%) and a small increase in equity (3%). The percentage change must always be interpreted together with the absolute dollar amount of change to avoid incorrect conclusions; percentage can sometimes be misleading.

In the common-size balance sheet, the composition of the assets has changed with an overall shift to current assets in 2019 (57.6% vs. 46.6%). Also, an increase in the percentage of current liabilities has occurred, resulting in an overall shift from equity financing to debt financing from 2020 to 2021.

The same analysis of BDCC's income statement is as follows:

Horizontal Analysis: Income Statements

	2021	2020	Change: Amount	Change: Per Cent
Sales	$3,200 (a)	$2,800 (b)	+$400 (a-b)	+14 [(a-b)/b]
Cost of Goods Sold	2,500	2,150	+$350	+16
Gross Profit	700	650 (c)	+$ 50	+8
Expenses	584	533	+$ 51	+10
Net Income	$ 116	$ 117	-$ 1	-1

Vertical Analysis (Common-size): Income Statements

	% 2021	% 2020
Sales	100	100 (b/c)
Cost of Goods Sold	78	77
Gross Profit	22	23
Expenses	18	19
Net Income	4	4

Although sales and gross profit increased in dollar amounts, net income decreased slightly from 2020 to 2021 (1%). This net decrease resulted because cost of goods sold increased at a faster rate than sales (16% vs. 14%).

Notice the relative change in the components. For example, cost of goods sold increased in 2021 relative to sales (78% vs. 77%), while expenses in 2021 relative to sales decreased (18% vs. 19%). The overall changes were almost offsetting, as net income remained fairly stable.

The percentages calculated become more informative when compared to earlier years. Further analysis is usually undertaken in order to establish answers to the following questions:

What caused this change? Is this change favourable or unfavourable?	How do the percentages of this company compare with other companies in the same industry? In other industries?

These and similar questions call attention to areas that require further study. One item of note becomes more apparent as a result of the trend analysis above. Initially, it was stated that operating expenses were increasing between 2019 and 2021. Based on trend analysis, however, these expenses are actually declining as a percentage of sales. As a result, their fluctuations may not be as significant as first inferred. Conversely, the increases each year in cost of goods sold may be worrisome. Initial gross profit ratio calculations seemed to indicate little variation, and thus little effect on income from operations. The increase in cost of goods sold (78% vs. 77% of sales) mayn warrant further investigation.

The ratios covered in this chapter are summarized in Figure 13.2.

Analysis of liquidity:	Calculation of ratio:	Indicates:
1. Working Capital	Current assets – Current liabilities	The excess of current assets available after covering current liabilities (expressed as a dollar amount).
2. Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	The amount of current assets available to pay current liabilities.
3. Acid-test ratio	$\frac{\text{Quick current assets}}{\text{Current liabilities}}$	Whether the company is able to meet the immediate demands of creditors. (This is a more severe measure of liquidity.)
4. Accounts receivable collection period	$\frac{\text{Average net accounts receivable}}{\text{Net credit sales (or revenues)}} \times 365$	The average time needed to collect receivables.
5. Number of days of sales in inventory	$\frac{\text{Average inventory}}{\text{Cost of goods sold}} \times 365$	How many days of sales can be made with existing inventory
6. Revenue operating cycle	Average number of days to collect receivables + Average number of days of sales inventory	Length of time between the purchase of inventory and the subsequent collection of cash.

Figure 13.2: Summary of Financial Statement Analysis Ratios

Analysis of profitability:	Calculation of ratio:	Indicates:
1. Gross profit ratio	$\frac{\text{Gross profit}}{\text{Net sales}}$	The percentage of sales revenue that is left to pay operating expenses, interest, and income taxes after deducting cost of goods sold.
2. Operating profit ratio	$\frac{\text{Income from operations}}{\text{Net sales}}$	The percentage of sales revenue that is left to pay interest and income taxes expenses after deducting cost of goods sold and operating expenses.
3. Net profit ratio	$\frac{\text{Net income}}{\text{Net sales (or revenues)}} \times 100$	The percentage of sales left after payment of all expenses.
4. Sales to total assets ratio	$\frac{\text{Net sales}}{\text{Average total assets}}$	The adequacy of sales in relation to the investment in assets.
5. Return on total assets	$\frac{\text{Income from operations}}{\text{Average total assets}}$	How efficiently a company uses its assets as resources to earn net income.
6. Return on equity	$\frac{\text{Net income}}{\text{Average equity}}$	The adequacy of net income as a return on equity.

Leverage ratios:	Calculation of ratio:	Indicates:
1. Debt ratio	$\frac{\text{Total liabilities}}{\text{Total assets}}$	The proportion of total assets financed by debt.
2. Equity ratio	$\frac{\text{Total equity}}{\text{Total assets}}$	The proportion of total assets financed by equity.
3. Debt to equity ratio	$\frac{\text{Total liabilities}}{\text{Equity}}$	The proportion of creditor financing to shareholder financing.
4. Times interest earned ratio	$\frac{\text{Income from operations}}{\text{Interest expense}}$	The ability of a company to pay interest to long-term creditors.

Market ratios:	Calculation of ratio:	Indicates:
1. Earnings per share	$\frac{\text{Net income} - \text{Preferred share dividends}}{\text{Average number of common shares outstanding}}$	The amount of net income that has been earned on each common share after deducting dividends to preferred shareholders.
2. Price-earnings ratio	$\frac{\text{Market price per share}}{\text{Earnings per share}}$	Market expectations of future profitability.
3. Dividend yield ratio	$\frac{\text{Dividends per share}}{\text{Market price per share}}$	The short-term cash return that can be expected from an investment in a company's shares.

Schematically, the various analytical tools can be illustrated as shown in Figure 12.3.

Liquidity		Profitability		Financial	Market	Trend Analysis
Short-termcash needs	*Current asset performance*	*Returns on sales*	*Returns on balance sheetitems*			
Current ratio	A/R collection period	Gross profit ratio	Sales to total assets ratio	Debt to equity ratio	Earnings per share	Horizontal
Acid-test ratio	Number of days of sales in inventory	Operatin gincome ratio	Return on total assets	Times interest earned ratio	Price-earnings ratio	Vertical
	Revenue operating	Net profit ratio	Return onequity		Dividend	

Figure 13.3: Categorization of Financial Statement Analytical Tools

13.9 LET US SUM UP

Describe ratio analysis, and explain how the liquidity, profitability, lever- age, and market ratios are used to analyze and compare financial statements.

Ratio analysis measures the relative magnitude of two selected numerical values taken from a company's financial statements and compares the result to prior years and other similar companies. Financial ratios are an effective tool for measuring: (a) liquidity (current ratio, acid-test ratio, accounts receivable collection period, and number of days of sales in inventory); (b) profitability (gross profit ratio, operating profit ratio, net profit ratio, sales to total assets ratio, return on total assets, and return on equity); (c) leverage (debt ratio, equity ratio, debt to equity ratio, and times interest earned ratio); and (d) market ratios (earnings per share, price-earnings ratio, and dividend yield ratio). Ratios help identify the areas that require further investigation.

Describe horizontal and vertical trend analysis, and explain how they are used to analyze financial statements.

Horizontal analysis involves the calculation of percentage changes from one or more years over the base year dollar amount. The base year is typically the oldest year and is always 100%. Vertical analysis requires that numbers in a financial statement be restated as percentages of a base dollar amount. For income statement analysis, the base amount used is sales. For balance sheet analysis, total assets, or total liabilities and equity, are used as the base amounts. When financial statements are converted to percentages, they are called common-size financial statements.

13.10 CHECK YOUR PROGRESS

Q-1 The following are condensed comparative financial statements of Stock well Inc. for the three years ended December 31, 2015.

Balance Sheet
At December 31

Assets	*2015*	*2014*	*2013*
Current			
Cash	$ 21	$ 8	$ 17
Accounts Receivable	38	30	20
Merchandise Inventory	60	40	30
Prepaid Expenses	1	2	3
Total Current Assets	120	80	70
Property, plant and equipment assets, at carrying amount	260	150	76
Total Assets	$380	$230	$146
Current Liabilities			
Accounts Payable	$100	$ 80	$ 50
Non-current			
Bonds Payable, 4%	50	50	-0-
	150	130	50
Equity			
Common Shares	200	80	80
Retained Earnings	30	20	16
	230	100	96
Total Liabilities and Equity	$380	$230	$146

Income Statement
For the Years Ended December 31

	2015	*2014*	*2013*
Sales	$210	$120	$100
Cost of Goods Sold	158	80	55
Gross Profit	52	40	45
Operating Expenses	35	32	33
Income from Operations	17	8	12
Interest Expense	2	2	-0-
Income before Income Taxes	15	6	12
Income Taxes	5	2	4
Net Income	$ 10	$ 4	$ 8

Additional information:

i. The company's accounts receivable at December 31, 2012 totalled $20.
ii. The company's merchandise inventory at December 31, 2012 totalled $20.
iii. The company's property, plant and equipment assets at December 31, 2012 totalled $70.
iv. Credit terms are net 60 days from date of invoice.
v. Number of common shares outstanding: 2013–80, 2014–80, 2015–400.

***Required**:*

a. Calculate liquidity ratios and discuss.

b. What is your evaluation of

i. The financial structure of the corporation?
ii. The proportion of shareholder and creditor claims to its assets?
iii. The structure of its short-term and long-term credit financing?

c. What are some other observations you can make about the financial performance of Stock- well?

Q-2 The following information relates to three companies in the same industry

Company	*Latest market price*	*Earnings per share*	*Dividends per share*
A	$ 35	$ 11	$ -0-
B	40	5	4
C	90	10	6

Required: Explain and calculate the price-earnings and dividend yield ratios. On the basis of only the foregoing information, which company represents the most attractive investment opportunity to you? Explain.

Q-3 Consider the following information:

Salinas Limited Balance Sheet

At December 31, 2012

Assets		***Liabilities and Equity***	
Cash	$ 72	Accounts Payable	$ 60
Accounts Receivable	88	Bank Loan, non-current	150
Merchandise Inventory	100		
Prepaid Expenses	40	Preferred Shares	60
Property, Plant, and Equipment,		Common Shares	250
at carrying amount	320	Retained Earnings	100
Total Assets	$620	Total Liabilities and Equity	$620

Salinas Limited

Income Statement

For the Year Ended December 31, 2012

Sales		$240
Cost of Goods Sold		144
Gross Profit		96
Operating Expenses		
Salaries	$ 44	
Depreciation	6	50
Income from Operations		46
Less: Interest		8
Income before Income Taxes		38
Less: Income Taxes		18
Net Income		$ 20

Assume that 80% of sales are on credit, that the average of all balance sheet items is equal to the year-end figure, that all preferred share dividends have been paid and the total annual preferred dividend entitlement is $6, and that the number of common shares outstanding is 10.

Required: Calculate the following ratios and percentages

a. Current ratio
b. Return on total assets
c. Sales to total assets
d. Acid-test ratio
e. Times interest earned
f. Earnings per common share
g. Accounts receivable collection period
h. Return on equity

***Q-4* The following data are taken from the records of Cronkite Corp.:**

	2012	*2011*
Sales	$2,520	$1,440
Cost of Goods Sold	1,890	960
Gross Profit	630	480
Other Expenses	510	430
Net Income	$ 120	$ 50

Required: Perform horizontal analysis on the above date and interpret your results.

Q-5 Assume you are an accountant analysing Escalade Corporation. Escalade has expanded its production facilities by 200% since 2010. Its income statements for the last three years are as follows:

Escalade Corporation Comparative Income Statements For the Years Ending December 31

	2012	*2011*	*2010*
Sales	$250	$150	$120
Cost of Goods Sold	190	100	60
Gross Profit	60	50	60
Other Expenses	35	34	35
Net Income	$ 25	$ 16	$ 25

Required:

a. Prepare a vertical analysis of Escalade Corporation's income statement for the three years.

b. What inferences can be drawn from this analysis

Q-6 The following information is taken from the partial balance sheet of Quail Productions Corp.

	2018	2017
Current assets		
Cash	$ 10	$ 15
Marketable investments	35	35
Accounts receivable	200	150
Current liabilities		
Accounts payable	500	400
Borrowings	245	180

Required:

a. Describe the purpose of and calculate the current ratio for each year.

b. Describe the purpose of and calculate the acid-test ratio for both years.

c. What observations can you make from a comparison of the two types of ratios?

13. 11 ANSWER TO CHECK YOUR PROGRESS

Ans-1

The calculation of ratios as shown by the financial statements of Stockwell Inc. for each of the three years is as follows:

a. Liquidity ratios

		2015	*2014*	*2013*
Current ratio		1.2:1	1.0:1	1.4:1
Acid-test ratio		0.59:1	0.48:1	0.74:1
Sales		210 (a)	120	100
Accounts receivable	–opening	30	20	20
	–closing	38	30	20
	–average	34 (b)	25	20
Accounts receivable Collection period (b/a × 365)		59 days	76 days	73 days
Cost of goods sold		158 (c)	80	55
Merchandise inventory	–opening	40	30	20
	–closing	60	40	30
	–average	50 (d)	35	25
Number of days of sales in inventory (d/c × 365)		116 days	160 days	166 days
Revenue operating cycle		175 days	236 days	239 days

The company's working capital position does not appear to be satisfactory, since the liquid assets appear to be insufficient to meet current obligations. The acid-test ratio is quite low, well below 1:1. The company could obtain additional cash by issuing shares or acquiring long-term debt. Alternately, it may need to seek short-term financing like an operating loan from a bank to provide cash to pay liabilities as they become due.

• Control over accounts receivable and inventories has improved. Even though the dollar value of both of these items has increased, average sales and collection periods have declined in 2015. The liquidity ratios for 2014 as compared with 2015 and 2013 suggest that not enough attention was given during that year to investments in inventories and to the collection of accounts receivable. However, the improvements shown in 2015 indicate that better control is now being exercised over these current assets.

i. Financial structure

	2015	2014	2013
Debt to equity ratio	\$150/230 = 0.65:1	\$130/100 = 1.30:1	\$50/96 = 0.52:1

total assets). If not, it is less likely that any potential for positive leverage exists. In this circumstance a weighting toward equity is reasonable.

ii. The proportion of assets provided by creditors is as follows: 2013 – 34.3% (50/146); 2014 – 56.5% (130/230), and 2015 – 39.5% (150/380).

iii. A disproportionately high percentage of debt, over 60% in both 2014 and 2015, is in current liabilities.

c. Other observations:

• The gross profit ratio has declined over the past year, even though sales have more than doubled (2015: \$52/210 = 25%; 2014: \$40/120 = 33%). The decrease in this ratio suggests either that selling prices were reduced in order to dispose of the increased production or that the expansion in production facilities resulted in a higher unit cost; possibly there was a combination of both.

• All funds derived from earnings during the last two years have been retained within the business, since no dividends have been paid. However, the investment in property, plant and equipment assets of \$190 (\$260 □ 70) exceeds the \$170 received on the issue of bonds and shares [\$50 + (200 □ 80)]. It appears that a substantial part of the funds derived from earnings have been used to finance additions to property, plant and equipment assets rather than to provide working capital. This has weakened the liquidity ratios.

(Other relevant observations are acceptable.)

Ans-2

$$\text{Price-earnings ratio} = \frac{\text{Market price per share}}{\text{Earnings per share}}$$

This ratio indicates the stock market's expectations of profitability for the company. A higher P/E
ratio indicates that the market expects the company to be profitable despite relatively lower net

income at present. On this basis, company C is preferred.

A: $35/11 = 3.2

B: $40/5 = 8

C: $90/10 = 9

$$\text{Dividend yield} = \frac{\text{Dividends per share}}{\text{Market price per share}}$$

This ratio indicates what short-term cash return shareholders might expect on their investment in common shares of the company.

A: 0

B: $4/40 = 10

C: $6/90 = 6.7

The stock market indicates that company C is expected to be relatively more profitable than A or B in the future. However, if dividend yield is important to the shareholder, then company B should be chosen. On either basis, company A does not appear to be a good investment.

Ans-3

a. Current ratio

$$= \frac{\text{Current assets}}{\text{Current liabilities}}$$

$$= \frac{\text{Cash + accounts receivable + inventory + prepaid expenses}}{\text{Current liabilities}}$$

= $300/60

= 5:1

b. Return on total assets

$$= \frac{\text{Income from operations}}{\text{Average total assets}}$$

= $46/620

= 7.4%

c. Sales to total assets ratio

$$= \frac{\text{Net sales}}{\text{Average total assets}}$$

= $240/620

= 38/7%

d. Acid-test ratio

$$= \frac{\text{Quick assets}}{\text{Current liabilities}}$$

$$= \frac{\text{Cash + accounts receivable}}{\text{Current liabilities}}$$

= ($72 + 88)/60

= 2.7:1

e. Times interest earned ratio

$$= \frac{\text{Income from operations}}{\text{Interest expense}}$$
$= \$46/8$
$= 5.75:1$

f. Earnings per common share

$$= \frac{\text{Net income} - \text{preferred share dividends}}{\text{Number of common shares outstanding}}$$
$= [\$20 - (\$60 \times 10\%)]/10 \text{ shares}$
$= \$1.40$ per share

g. Accounts receivable collection period

$$= \frac{\text{Average accounts receivable}}{\text{Net credit sales}} \times 365 \text{ days}$$
$= \$88/(80\% \times \$240) \times 365 \text{ days}$
$= 167$ days

h. Return on equity

$$= \frac{\text{Net income}}{\text{Equity}}$$
$$= \frac{\text{Net income}}{\text{Preferred shares} + \text{Common shares} + \text{Retained earnings}}$$
$= \$20/(60 + 250 + 100)$
$= 4.9\%$

Ans-4

a. Horizontal analysis:

	2012	2011	Change	
			Amount	*Percentage*
	(a)	*(b)*	*(a − b)*	*(a − b)/b*
Sales	$2,520	$1,440	$+1,080	+75%
Cost of Goods Sold	1,890	960	+930	+96.9%
Gross Profit	630	480	+150	+31.3%
Other Expenses	510	430	+80	+18.6%
Net Income	$120	$50	+70	+140%

b. Although sales have increased, cost of goods sold has increased at a faster pace. However, operating expenses have increased at a slower pace, resulting in a substantially higher net income.

Ans-5

a. Vertical analysis:

Escalade Corporation
Vertical Analysis of the Income Statements
For the Years Ending December 31, 2010–2012

	Common–Size Percentages		
	2012	*2011*	*2010*
Sales	100.0	100.0	100.0
Cost of Goods Sold	76.0	66.7	50.0
Gross Profit	24.0	33.3	50.0
Other Expenses	14.0	22.7	29.2
Net Income	10.0	10.6	20.8

b. Escalade's gross profit ratio has significantly declined over the past three years. This could be owing to the initial inefficiency of a larger plant or because of selling an increased number of units at a greatly reduced price to obtain a larger share of the market. At any rate, the reasons for this decline should be investigated further. Since other expenses have not increased proportionately, perhaps more money could be put into sales promotion to increase the number of units sold.

13.12 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.
5) Introduction to Financial Accounting by Henry Dauderis & David AnnandEdited by Athabasca University

13.13 ASSIGNMENT

1. Ratios need to be evaluated against some base. What types of information can be used to compare ratios against?
2. Explain what *liquidity* means. When a corporation is illiquid, what are the implications for shareholders? ...for creditors?

3. How is it possible that a corporation producing net income each year can be illiquid?
4. What ratios can be calculated to evaluate liquidity? Explain what each one indicates.
5. **a.** Define working capital. Distinguish between the current ratio and the acid test ratio.

   b. "The current ratio is, by itself, inadequate to measure liquidity." Discuss this statement.
6. Two firms have the same amount of working capital. Explain how it is possible that one is able to pay off short-term creditors, while the other firm cannot.
7. Management decisions relating to accounts receivable and inventory can affect liquidity. Explain.
8. What is one means to evaluate the management of accounts receivable? ...inventory?
9. Discuss the advantages and disadvantages of decreasing number of days of sales in inventory.
10. What is the revenue operating cycle? How is its calculation useful in evaluating liquidity?
11. **a.** Identify and explain six ratios (and any associated calculations) that evaluate a corporation's profitability.

    b. What does each ratio indicate?
12. Why are analysts and investors concerned with the financial structure of a corporation?
13. Is the reliance on creditor financing good or bad? Explain its impact on net income.
14. Discuss the advantages and disadvantages of short-term debt financing compared to long- term debt financing.
15. Identify and explain ratios that evaluate financial returns for investors.
16. Distinguish between horizontal and vertical analyses of financial statements.

Unit 14: The Statement Of Cash Flows

14

Unit Structure

14.1. Learning Objectives

14.2. Financial Statement Reporting

14.3. Preparing the Statement of Cash Flows

14.4. Interpreting the Statement of Cash Flows

14.5. Appendix A: Putting It All Together :Corporate Financial Statements;

14.6. Let Us Sum Up

14.7. Check your progress

14.8. Answer to Check your progress

14.9. Further Reading

14.10. Assignments

14.1 LEARNING OBJECTIVES

After studying this unit student should be able to:

- Explain the purpose of the statement of cash flows
- Prepare a statement of cash flows.
- Interpret a statement of cash flows.

14.2 Financial Statement Reporting

Cash flow is an important factor in determining the success or failure of a corporation. It is quite possible for a profitable business to be short of cash. As discussed in Chapter 7, a company can have liquidity issues be- cause of large amounts of cash tied up in inventory and accounts receivable, for instance. Conversely, an unprofitable business might have sufficient cash to pay its bills if it has access to enough financing from loans or by issuing share capital.
We know that the financial activities of a corporation are reported through four financial state- ments: a balance sheet, an income statement, a statement of changes in equity, and a statement of cash flows (SCF). Statement of cash flows. This chapter discusses the statement of cash flows in detail.

The SCF identifies the sources (inflows) and uses (outflows) of cash during the accounting period. It explains why the cash balance at the end of the accounting period is different from that at the beginning of the period by describing the enterprise's *financing*, *investing*, and *operating* activities.

Cash flow information is useful to management when making decisions such as purchasing equipment, plant expansion, retiring long-term debt, or declaring dividends. The SCF is useful to external users when evaluating a corporation's financial performance.

The SCF, together with the income statement, provides a somewhat limited means of assessing future cash flows because these statements are based on historical, not prospective data. Nevertheless, the ability to generate cash from past operations is often an important indication of whether the enterprise will be able to meet obligations as they become due, pay dividends, pay for recurring operating costs, or survive adverse economic conditions.

For SCF purposes, cash includes cash and cash equivalents — assets that can be quickly converted into a known amount of cash, such as short-term investments that are not subject to significant risk of changes in value. For our purposes, an investment will be considered a cash equivalent when it has a maturity of three months or less from the date of acquisition.

Because of differences in the nature of each entity and industry, management judgment is required to determine what assets constitute cash and cash equivalents for a particular firm. This decision needs to be disclosed on the SCF or in a note to the financial statements as shown in the following example:

Note X

Cash and cash equivalents consist of cash on deposit and short-term investments held for the purposes of meeting cash commitments within three months from the balance sheet date. Cash and cash equivalents consist of the following:

		($000s)	
	2019	2018	2017
Cash on Deposit	$20	$30	$50
Short-term Investments	36	31	37
	$56	$61	$87

For simplicity, examples throughout this chapter involving cash and cash equivalents will include only cash.

Cash flows result from a wide variety of a corporation's activities as cash is received and disbursed over a period of time. Because the income statement is based on accrual accounting that matches expenses with revenues, net income most often does not reflect cash receipts and disbursements during the time period they were made. As we will see, the statement of cash flows converts accrual net income to a cash basis net income.

14.3 Preparing the Statement of Cash Flows

The general format for a SCF is shown in Figure 11.1. The SCF details the cash inflows and outflows that caused the beginning of the period cash account balance to change to its end of period balance.

Name of Company
Statement of Cash Flows
For the Period Ended

Cash flows from operating activities:	
[Each operating inflow/outflow is listed]	
Net cash inflow/outflow from operating activities	$ XX
Cash flows from investing activities:	
[Each investing inflow/outflow is listed]	
Net cash inflow/outflow from investing activities	XX
Cash flows from financing activities:	
[Each financing inflow/outflow is listed]	
Net cash inflow/outflow from financing activities	XX
Net increase/decrease in cash	$ XX
Cash at beginning of period	XX
Cash at end of period	$ XX

Figure 14.1: General Format for a Statement of Cash Flows

Notice that the cash flows in Figure 10.1 are separated into three groups: cash flows from operating, investing, and financing activities. Grouping or classifying cash flows is a key component of preparing a SCF.

Classifying Cash Flows—Operating Activities

Cash flow from operating activities represents cash flows generated from the principal activities that produce revenue for a corporation, such as selling products, and the related expenses reported on the income statement. Because of accrual accounting, the net income reported on the income statement includes noncash transactions. For example, revenue earned on account is included in accrual net income but it does not involve cash (debit accounts receivable and credit revenue). Therefore, the operating activities section of the SCF must convert accrual net income to a cash basis net income. There are two generally accepted methods for preparing the operating activities section of the SCF, namely the direct method and the indirect method. This chapter illustrates the indirect method because it is more commonly used in Canada. The direct

method is addressed in a different textbook. Both methods result in the same cash flows from operating activities — it is the way in which the number is calculated that differs. The method used has an impact on only the operating activities section and not on the investing or financing activities sections.

In using the indirect method for preparing the operating activities section, the accrual net in- come is adjusted for changes in current assets (except cash), current liabilities (except dividends payable), depreciation expense, and gains/losses on the disposition of non-current assets. Figure 10.2 illustrates the effect of these items on the SCF.

Cash flows from operating activities:		
Net income/net loss	$	XX
Adjustments to reconcile net income/loss to cash provided/used by operating activities:		
Add: Decreases in current assets (except Cash)		XX
Subtract: Increases in current assets (except Cash)		XX
Add: Increases in current liabilities (except Dividends payable)		XX
Subtract: Decreases in current liabilities (except Dividends payable)		XX
Add: Depreciation expense		XX
Add: Losses on disposal of non-current assets		XX
Subtract: Gains on disposal of non-current assets		XX
Net cash inflow/outflow from operating activities	$	XX

Figure 14. 2: Detailed Adjustments to Convert Accrual Net Income to a Cash Basis

Decreases in current assets are added back as an adjustment to net income because, for example, a decrease in accounts receivable indicates that cash was collected from credit customers (debit cash and credit accounts receivable) yet it is not part of accrual net income, so the cash collected must be added. An increase in accounts receivable indicates that sales on account were recorded (debit accounts receivable and credit sales) so it is part of accrual net income. However, since no cash was collected, this must be subtracted from accrual net income to adjust it to a cash basis.

Increases in current liabilities are added back as an adjustment to net income because, for ex- ample, an increase in accounts payable indicates that a purchase/expense was made on account (debit expense and credit accounts payable) so it was subtracted in calculating accrual net income. However, since no cash was paid, this must be added back to accrual net income to adjust it to a cash basis. A decrease in accounts payable

indicates that a payment was made to a creditor (debit accounts payable and credit cash) yet it is not part of accrual net income so the cash paid must be subtracted.

Depreciation expense is subtracted in calculating accrual net income. However, an analysis of the journal entry shows that no cash was involved (debit depreciation expense and credit accumulated depreciation), so it must be added back to adjust the accrual net income to a cash basis.

A loss on the disposal of a non-current asset is added back as an adjustment to net income because, in analyzing the journal entry when losses occur (e.g., debit cash, debit loss, credit land), the loss represents the difference between the cash proceeds and the book value of the non-current asset. Since a loss is subtracted on the income statement and does not represent a cash outflow, it is added back to adjust the accrual net income to a cash basis. The same logic applies for a gain on the disposal of a non-current asset.

Classifying Cash Flows—Investing Activities

Cash flows from investing activities involve increases and decreases in long-term asset accounts. These include outlays for the acquisition of property, plant, and equipment, as well as proceeds

Cash flows from investing activities:		
Cash proceeds from sale of non-current assets	XX	
Cash paid to purchase non-current assets	XX	
Net cash inflow/outflow from investing activities		XX

Figure 14..3: Detail of Inflows/(Outflows) From Investing Activities

Classifying Cash Flows—Financing Activities

Cash flows from financing activities result when the composition of the debt and equity capital structure of the entity changes. This category is generally limited to increases and decreases in long-term liability accounts and share capital accounts such as common and preferred shares. These include cash flows from the issue and repayment of debt, and the issue and repurchase of share capital. Dividend payments are generally considered to be financing activities, since these represent a return to shareholders on the original capital they invested. Figure 14.4 illustrates the effect of these items on the SCF.

Cash flows from financing activities:		
Cash proceeds from issuance of shares	XX	
Cash paid for repurchase of shares	XX	
Cash proceeds from borrowings	XX	
Cash repayments of borrowings	XX	
Cash paid for dividends	XX	
Net cash inflow/outflow from financing activities		XX

Figure 14.4: Detail of Inflows/(Outflows) From Financing Activities

Classifying Cash Flows—Noncash Investing and Noncash Financing Activities

There are some transactions that involve the direct exchange of non-current balance sheet items so that cash is not affected. For example, noncash investing and noncash financing activities would include the purchase of a non-current asset by issuing debt or share capital, the declaration and issuance of a share dividend, retirement of debt by issuing shares, or the exchange of noncash assets for other noncash assets. Although noncash investing and noncash financing activities do not appear on the SCF, the full disclosure principle requires that they be disclosed either in a note to the financial statements or in a schedule on the SCF.

Example Corporation
Balance Sheet
At December 31
($000s)

	2016	*2015*
Assets		
Current assets		
Cash	$ 27	$ 150
Accounts receivable	375	450
Merchandise inventory	900	450
Prepaid expenses	20	10
Total current assets	1,322	1,060
Property, plant, and equipment		
Land	70	70
Buildings	1,340	620
Less: Accumulated depreciation - buildings	(430)	(280)
Machinery	1,130	920
Less: Accumulated depreciation - machinery	(250)	(240)
Total property, plant, and equipment	1,860	1,090
Total assets	$ 3,182	$ 2,150
Liabilities		
Current liabilities		
Accounts payable	$ 235	$ 145
Dividends payable	25	30
Income taxes payable	40	25
Total current liabilities	300	200
Long-term loan payable	1,000	500
Total liabilities	1,300	700
Equity		
Common shares	1,210	800
Retained earnings	672	650
Total equity	1,882	1,450
Total liabilities and equity	$ 3,182	$ 2,150

Example Corporation
Income Statement
For the Year Ended December 31, 2016
($000s)

Sales		$ 1,200
Cost of goods sold		674
Gross profit		526
Operating expenses		
Selling, general, and administration	$ 115	
Depreciation	260	375
Income from operations		151
Other revenues and expenses		
Interest expense	26	
Loss on disposal of machinery	10	36
Income before income taxes		115
Income taxes		35
Net Income		$ 80

Example Corporation
Statement of Changes in Equity
For the Year Ended December 31, 2016
($000s)

	Share Capital	*Retained Earnings*	*Total Equity*
Opening balance	$ 800	$ 650	$ 1,450
Common shares issued	410	-	410
Net income	-	80	80
Dividends declared	-	(58)	(58)
Ending balance	$ 1,210	$ 672	$ 1,882

The SCF can be prepared from an analysis of transactions recorded in the Cash account. Accountants summarize and classify these cash flows on the SCF for the three major activities noted earlier, namely operating, investing, and financing. To aid our analysis, the following list of additional information from the records of Example Corporation will be used.

Additional Information

1. A building was purchased for $720 cash.
2. Machinery was purchased for $350 cash.
3. Machinery costing $140 with accumulated depreciation of $100 was sold for $30 cash.
4. Total depreciation expense of $260 was recorded during the year; $150 on the building and $110 on the machinery.
5. Example Corporation received $500 cash from issuing a long-term loan with the bank.
6. Shares were issued for $410 cash.

7. $58 of dividends were declared during the year.

Analysis of Cash Flows

There are different ways to analyze cash flows and then prepare the SCF; only one of those techniques will be illustrated here using the following steps.

1. Set up a cash flow table.
2. Calculate the changes in each balance sheet account.
3. Calculate and analyze the changes in retained earnings and dividends payable (if there is a Dividends Payable account).
4. Calculate and analyze the changes in the noncash current assets and current liabilities (excluding Dividends Payable account).
5. Calculate and analyze changes in non-current asset accounts
6. Calculate and analyze changes in Long-term Liability and Share Capital accounts.
7. Reconcile the analysis.
8. Prepare a statement of cash flows.

Step 1: Set up a cash flow table

Set up a table as shown below with a row for each account shown on the balance sheet. Enter amounts for each account for 2015 and 2016. Show credit balances in parentheses. Total both columns and ensure they equal zero. The table should appear as follows after this step has been completed:

	Balance ($000s)	
Account	*2016 Dr. (Cr.)*	*2015 Dr. (Cr.)*
Cash	27	150
Accounts receivable	375	450
Merchandise inventory	900	450
Prepaid expenses	20	10
Land	70	70
Buildings	1,340	620
Accum. dep.- buildings	(430)	(280)
Machinery	1,130	920
Accum. dep.- machinery	(250)	(240)
Accounts payable	(235)	(145)
Dividends payable	(25)	(30)
Income taxes payable	(40)	(25)
Long-term loan payable	(1,000)	(500)
Share capital	(1,210)	(800)
Retained earnings	(672)	(650)
Total	-0-	-0-

Step 2: Calculate the change in cash

Add two columns to the cash flow table. Calculate the net debit or net credit change in cash and insert this change in the appropriate column. This step is shown below.

Account	Balance ($000s) 2016 Dr. (Cr.)	Balance ($000s) 2015 Dr. (Cr.)	Step 2 Change Dr.	Step 2 Change Cr.
Cash	27	150		123
Accounts receivable	375	450		
Merchandise inventory	900	450		
Prepaid expenses	20	10		
Land	70	70		
Buildings	1,340	620		
Accum. dep. – buildings	(430)	(280)		
Machinery	1,130	920		
Accum. dep. – machinery	(250)	(240)		
Accounts payable	(235)	(145)		
Dividends payable	(25)	(30)		
Income taxes payable	(40)	(25)		
Long-term loan payable	(1,000)	(500)		
Share capital	(1,210)	(800)		
Retained earnings	(672)	(650)		
Total	-0-	-0-		

Cash has decreased by $123k. This is the amount that the SCF analysis must reconcile to.

Step 3: Calculate and analyze the changes in retained earnings and dividends payable (if there is a Dividends Payable account)

When we calculate the changes for each of retained earnings and dividends payable, the net difference may not always reflect the causes for change in these accounts. For example, the net difference between the beginning and ending balances in retained earnings is an increase of $22 thousand. However, two things occurred to cause this net change: a net income of $80 thousand (a debit to income summary and a credit to retained earnings) and dividends of $58 thousand that were declared during the year per the additional information (a debit to retained earnings of $58k and a credit to dividends payable of $58k). ***The net income of $80 thousand is the starting position in the operating activities section of the SCF (see Figure 11.5).***

The change in the dividends payable balance was also caused by two transactions — the dividend declaration of $58 thousand (a debit to retained earnings and a credit to dividends payable) and a $63 thousand payment of dividends (a debit to dividends payable and a credit to cash). ***The $63 thousand cash payment is subtracted in the***

financing activities section of the SCF (see Figure 11.5). Dividends payable can change because of two transactions, as in this example, or because of one transaction, which could be either a dividend declaration with no payment of cash, or a payment of the dividend payable and no dividend declaration. Step 3 as it applies to Example Corporation is detailed below.

During 2016, dividends of $58k were declared (this information was given). The beginning balance of $30k plus $58k means $63k were paid, creating the ending balance of $25k (the $63k was not given so had to be calculated and results in a debit to dividends payable). The payment of $63k of dividends is a financing activity.

Account	*Balance ($000s)* 2016 Dr. (Cr.)	2015 Dr. (Cr.)	Step 3 *Change* Dr.	Cr.
Cash	27	150		123
Accounts receivable	375	450		75
Merchandise inventory	900	450	450	
Prepaid expenses	20	10	10	
Land	70	70		
Buildings	1,340	620		
Accum. dep. – buildings	(430)	(280)		
Machinery	1,130	920		
Accum. dep. – machinery	(250)	(240)		
Accounts payable	(235)	(145)		90
Dividends payable	(25)	(30)	63	58
Income taxes payable	(40)	(25)		15
Long-term loan payable	(1,000)	(500)		
Share capital	(1,210)	(800)		
Retained earnings	(672)	(650)	58	80
Total	-0-	-0-		

During 2016, net income of $80k was earned. The beginning balance in retained earnings of $650k plus net income of $80 means $58k of dividends were declared, creating the $672k ending retained earnings balance.

Step 4: Calculate and analyze the changes in the noncash current assets and current liabilities (excluding Dividends Payable account)

Calculate the net debit or net credit changes for each current asset and current liability account on the balance sheet and insert these changes in the appropriate column. Step 4 as it applies to Example Corporation is detailed below. ***The $75 thousand decrease***

in accounts receivable is added in the operating activities section of the SCF, the $450 thousand increase in merchandise inventory is subtracted, the $10 thousand increase in prepaid expenses is subtracted, the $90 thousand increase in accounts payable is added, and the $15 thousand increase in income taxes payable is added (see Figure 11.5).

	Balance ($000s)		Step 4 Change	
	2016	2015		
Account	Dr. (Cr.)	Dr. (Cr.)	Dr.	Cr.
Cash	27	150		123
Accounts receivable	375	450		75
Merchandise inventory	900	450	450	
Prepaid expenses	20	10	10	
Land	70	70		
Buildings	1,340	620		
Accum. dep. – buildings	(430)	(280)		
Machinery	1,130	920		
Accum. dep. – machinery	(250)	(240)		
Accounts payable	(235)	(145)		90
Dividends payable	(25)	(30)		
Income taxes payable	(40)	(25)		15
Long-term loan payable	(1,000)	(500)		
Share capital	(1,210)	(800)		
Retained earnings	(672)	(650)		
Total	-0-	-0-		

The net change in each of accounts receivable, merchandise inventory, and prepaid expenses are classified as operating activities.

The net change in each of accounts payable and income taxes payable are classified as operating activities.

Step 5: Calculate and analyze changes in non-current asset accounts

Changes in non-current assets are classified as investing activities. There was no change in the Land account. We know from the additional information provided that buildings and machinery were purchased and that machinery was sold.

Buildings were purchased for $720 thousand (a debit to buildings and a credit to cash). ***The cash payment of $720 thousand is shown in the investing activities section (see Figure 14.5)***.

Accumulated depreciation–buildings is a non-current asset account and it increased by $150 thou- sand. This change was caused by a debit to depreciation expense and a credit to accumulated depreciation–building. We know from an earlier discussion that depreciation expense is an adjustment in the operating activities section of the SCF

therefore ***the $150 thousand is added in the operating activities section (see Figure 14.5)***.

Two transactions caused machinery to change. First, the purchase of $350 thousand of machinery (debit machinery and credit cash); ***the $350 thousand cash payment is shown in the investing activities section (see Figure 11.5).*** Second, machinery costing $140 thousand with accumulated depreciation of $100 thousand was sold for cash of $30 thousand resulting in a loss of $10 thou- sand. ***The cash proceeds of $30 thousand is shown in the investing activities section of the SCF and the $10 thousand loss is added in the operating activities section (see Figure 14..5).***

Accumulated depreciation–machinery not only decreased $100 thousand because of the sale of machinery but it increased by $110 thousand because of depreciation (debit depreciation expense and credit accumulated depreciation–machinery). ***The $110 thousand of depreciation expense is added in the operating activities section of the SCF (see Figure 14.5).***

	Balance ($000s)		Change	
	2016	2015		
Account	Dr. (Cr.)	Dr. (Cr.)	Dr.	Cr.
Cash	27	150		123
Accounts receivable	375	450		75
Merchandise inventory	900	450	450	
Prepaid expenses	20	10	10	
Land	70	70	-0-	
Buildings	1,340	620	720	
Accum. dep. – buildings	(430)	(280)		150
Machinery	1,130	920	350	140
Accum. dep. – machinery	(250)	(240)	100	110
Accounts payable	(235)	(145)		90
Dividends payable	(25)	(30)	5	
Income taxes payable	(40)	(25)		15
Long-term loan payable	(1,000)	(500)		
Share capital	(1,210)	(800)		
Retained earnings	(672)	(650)		
Total	-0-	-0-		

Total depreciation expense of $260k was recorded during the year; $150k on the building and $110k on the machinery, an adjustment under operating activities on the SCF.

A building was purchased for cash of $720k, an investing activity.

Machinery costing $140k with accum. dep. of $100k was sold for cash of $30k, an investing activity.

Step 6: Calculate and analyze changes in Long-term Liability and Share Capital accounts

Changes in Long-term Liability and Share Capital accounts result from financing activities. We know from the additional information provided earlier that Example Corporation received cash of $500k from a bank loan (debit cash and credit long-term loan payable) and issued shares for $410k cash (debit cash and credit share capital). ***The $500 thousand cash proceeds from the bank loan and $410 thousand cash proceeds from the issuance of shares are listed in the financing section of the SCF (see Figure 14 =.5)***.

	Balance ($000s)		Step 6 *Change*	
Account	*2016 Dr. (Cr.)*	*2015 Dr. (Cr.)*	*Dr.*	*Cr.*
Cash	27	150		123
Accounts receivable	375	450		75
Merchandise inventory	900	450	450	
Prepaid expenses	20	10	10	
Land	70	70	-0-	
Buildings	1,340	620	720	
Accum. dep. – buildings	(430)	(280)		150
Machinery	1,130	920	350	140
Accum. dep. – machinery	(250)	(240)	100	110
Accounts payable	(235)	(145)		90
Dividends payable	(25)	(30)	5	
Income taxes payable	(40)	(25)		15
Long-term loan payable	(1,000)	(500)		500
Share capital	(1,210)	(800)		410
Retained earnings	(672)	(650)	58	80
Total	-0-	-0-		

Shares were issued for cash of $410k, a financing activity.

$500k of cash was received because of an additional bank loan, a financing activity.

Step 7: Reconcile the analysis

The analysis is now complete. Add the debit and credit changes, excluding the change in cash. The total debits of $1,693 less the total credits of $1,570 equal a difference of $123 which reconciles to the decrease in cash calculated in Step 2.

Account	Balance ($000s) 2016 Dr. (Cr.)	2015 Dr. (Cr.)	Change Dr.	Cr.
Cash	27	150		123
Accounts receivable	375	450		75
Merchandise inventory	900	450	450	
Prepaid expenses	20	10	10	
Land	70	70	-0-	
Buildings	1,340	620	720	
Accum. dep. – buildings	(430)	(280)		150
Machinery	1,130	920	350	140
Accum. dep. – machinery	(250)	(240)	100	110
Accounts payable	(235)	(145)		90
Dividends payable	(25)	(30)	5	
Income taxes payable	(40)	(25)		15
Long-term loan payable	(1,000)	(500)		500
Share capital	(1,210)	(800)		410
Retained earnings	(672)	(650)	58	80
Total	-0-	-0-	1,693	1,570
Change in cash				123

The change in cash calculated in Step 2... ...must agree to the change in cash resulting from the analysis.

The information in the completed analysis can be used to prepare the statement of cash flows shown in Figure 14.5.

Example Corporation
Statement of Cash Flows
For the Year Ended December 31, 2016
($000s)

Cash flows from operating activities:		
Net income		$ 80
Adjustments to reconcile net income cash provided by operating activities:		
Decrease in accounts receivable		75
Increase in merchandise inventory		(450)
Increase in prepaid expenses		(10)
Increase in accounts payable		90
Increase in income taxes payable		15
Depreciation expense		260
Loss on disposal of machinery		10
Net cash inflow from operating activities		$ 70
Cash flows from investing activities:		
Proceeds from sale of machinery	30	
Purchase of building	(720)	
Purchase of machinery	(350)	
Net cash outflow from investing activities		(1,040)
Cash flows from financing activities:		
Payment of dividends	(63)	
Proceeds from bank loan	500	
Issuance of shares	410	
Net cash inflow from financing activities		847
Net decrease in cash		$ (123)
Cash at beginning of year		150
Cash at end of year		$ 27

Figure 14.5: Statement of Cash Flows for Example Corporation

14.4 Interpreting the Statement of Cash Flows

Readers of financial statements need to know how cash has been used by the enterprise. The SCF provides external decision makers such as creditors and investors

with this information. The statement of cash flows pro- vides information about an enterprise's financial management policies and practices. It also may aid in predicting future cash flows, which is an important piece of information for investors and creditors.

The *quality* of earnings as reported on the income statement can also be assessed with the information provided by the SCF. The measurement of net income depends on a number of accruals and allocations that may not provide clear information about the cash-generating power of a company. Users will be more confident in a company with a high correlation between cash provided by operations and net income measured under the accrual basis. Recall, for instance, that although Example Corporation has net income of $80,000 during 2016, its net cash inflow from operations is only $70,000, chiefly due to the large increase in inventory levels. Although net cash flow from operations is still positive, this discrepancy between net income and cash flow from operations may indicate looming cash flow problems, particularly if the trend continues over time.

Example Corporation's SCF also reveals that significant net additions to plant and equipment assets occurred during the year ($1,070,000), financed in part by cash flow from operating activities but primarily by financing activities. These activities included the assumption of loans and issue of shares that amounted to $847,000, net of dividend payments ($500,000 from issuing a long-term loan plus $410,000 from issuing shares less $63,000 for payment of dividends).

It appears that a significant plant and equipment asset acquisition program may be underway, which may affect future financial performance positively. This expansion has been financed mainly by increases in long-term debt and the issuance of common shares. However, the magnitude of the plant and equipment asset purchases, coupled with the payment of the dividends to share- holders, has more than offset cash inflows from operating and financing activities, resulting in a net overall decrease in cash of $123,000. Though the current cash expenditure on long-term productive assets may be a prudent business decision, it has resulted in (hopefully temporary) adverse effects on overall cash flow.

The SCF is not a substitute for an income statement prepared on the accrual basis. Both statements should be used to evaluate a company's financial performance. Together, the SCF and income statement provide a better basis for determining the enterprise's ability to generate funds from operations and thereby meet current obligations when they

fall due (liquidity), pay dividends, meet recurring operating costs, survive adverse economic conditions, or expand operations with internally-generated cash.

The SCF highlights the amount of cash available to a corporation, which is important. Excess cash on hand is unproductive. Conversely, inadequate cash decreases liquidity. Cash is the most liquid asset, and its efficient use is one of the most important tasks of management. Cash flow information, interpreted in conjunction with other financial statement analyses, is useful in assessing the effectiveness of the enterprise's cash management policies.

Readers who wish to evaluate the financial position and results of an enterprise's operations also require information on cash flows produced by investing and financing activities. The SCF is the only statement that explicitly provides this information. By examining the relationship among the various sources and uses of cash during the year, readers can also focus on the effectiveness of management's investing and financing decisions and how these may affect future financial performance.

14.5 Appendix A: Putting It All Together :Corporate Financial Statements

The core financial statements connect to complete an overall picture of the company's operations and its current financial state. It is important to understand how these reports connect; therefore, a review of some simplified financial statements for Wellbourn Services Ltd. is presented below.

Wellbourn Services Ltd.
Statement of Income
for the year ended December 31, 2015

Revenues:		
Sales	$ 250,000	
Services revenue	53,000	
Total revenue		$ 303,000
Operating expenses:		
Cost of good sold	100,000	
Depreciation expense	3,000	
Rent expense	20,000	
Salaries expense	65,000	
Total operating expense		188,000
Income from continuing operations before tax		115,000
Income tax		34,500
Net income		$ 80,500
Earnings per share		$ 24

Wellbourn Services Ltd.
Statement of Changes in Equity
for the year ended December 31, 2015

	Common Shares	Retained Earnings	Total
Balance, January 1	$200,000	$75,000	$275,000
Net income		80,500	80,500
Issuance of common shares	10,000		10,000
Dividends declared		(50,000)	(50,000)
Balance, December 31	$210,000	$105,500	$315,500

Wellbourn Services Ltd.
Statement of Financial Position
December 31, 2015

Assets		Liabilities	
Current assets		Current liabilities	
Cash	$135,500	Accounts payable	$ 77,500
Accounts receivable (net)	225,000	Accrued liabilities	225,000
Inventory	130,000	Total current liabilities	302,500
Total current assets	490,500	Bonds payable	160,000
Investments	100,000	Total liabilities	462,500
Property, plant, and equipment (net)	172,500	Equity	
Intangible assets	15,000	Common shares	210,000
Total assets	$778,000	Retained earnings	105,500
		Total equity	315,500
		Liabilities and equity	$778,000

Wellbourn Services Ltd.
Statement of Cash Flows
for the year ended December 31, 2015

Cash flows from operating activities		
Net income	$ 80,500	
plus: Depreciation	3,000	
Increase in accounts receivable	(50,000)	
Increase in inventory	(34,700)	
Decrease in accounts payable	(20,000)	
Decrease in accrued liabilities	(5,000)	
Net cash used by operating activities		(26,200)
Cash flows from investing activities		
Purchase of equipment	(25,000)	
Net cash used by investing activities		(25,000)
Cash flows from financing activities		
Dividends paid	(50,000)	
Issued bonds	160,000	
Net cash received by financing activities		110,000
Net increase in cash		58,800
Cash balance, January 1		76,700
Cash balance, December 31		$135,500

As can be seen from the flow of the numbers above, the net income from the statement of income is closed to retained earnings.

The statement of changes in equity total column flows to the equity section of the balance sheet. Finally, the **statement of cash flows** (SCF) ending cash balance must be equal to the cash ending balance reported in the balance sheet, which completes the loop of interconnecting accounts and amounts.

Statement of Income with Discontinued Operations

Single-step and Multiple-step Statement of Income

Companies can choose whichever format best suits their reporting needs. Smaller companies tend to use the simpler single-step format, while larger companies tend to use the multiple-step format.

The Wellbourn Services Ltd. statement of income, shown earlier, is an example of a typical **single- step** income statement. For this type of statement, revenue and expenses are each reported in the two sections for continuing operations. Discontinued operations are separately reported below the continuing operations. The separate disclosure and format for the discontinued operations section is a reporting requirement and is discussed and illustrated below. The single-step format makes the statement simple to complete and keeps sensitive information out of the hands of competitive companies, but provides little in the way of analytical detail.

The **multiple-step** income statement format provides much more detail. Below is an example of a multiple-step statement of income for Toulon Ltd. for the year ended December 31, 2015.

Multiple-step format - typical sections and subtotals:			
Heading	Toulon Ltd. Statement of Income for the year ended December 31, 2015		
	In $000's except per share amounts	2015	2014
Gross profit section with subtotal	Sales	$6,260	$5,008
	Cost of goods sold	2,500	1,750
	Gross profit	3,760	3,258
Operating expenses with subtotal	Operating expenses		
	Salaries and benefits expense	650	520
	Depreciation expense	35	20
	Travel and entertainment expense	150	120
	Advertising expense	55	45
	Freight-out expenses	10	8
	Supplies and postage expense	5	4
	Telephone and internet expense	15	12
	Legal and professional expenses	8	6
	Insurance expense	6	5
		934	740
	Income from operations	2,826	2,518
Non-operationing section with subtotal	Other revenue and expense		
	Interest income from investments	5	5
	Gain from sale of trade investments	4	0
	Interest expense	(2)	(3)
		7	2
	Income from continuing operations before income tax	2,833	2,520
Income tax expense	→ Income tax expense	850	680
Subtotal from continuing operatings	→ Income from continuing operations	1,983	1,840
Discontinued	Discontinued operations		
	Loss from disposal of division (net of tax of $63,000)	(147)	0
		(147)	0
Net income (profit or loss)	Net income	1,836	1,840
Earnings per share	Basic earnings per share		
	Continuing operations	$16.32	$13.25
	Discontinued operations	(1.21)	0

The multiple-step format with its section subtotals makes performance analysis and ratio calculations such as gross profit margins easier to complete and makes it easier to assess the company's future earnings potential. The multiple-step format also enables investors and creditors to evaluate company performance results from continuing and ongoing operations having a high predictive value separately, compared to non-operating or unusual items having little predictive value.

Operating Expenses

As discussed in an earlier chapter, expenses from operations can be reported by their nature and, optionally, by function. **Expenses by nature** relate to the type of expense or the source of expense such as salaries, insurance, advertising, travel and entertainment, supplies expense, depreciation and amortization, and utilities expense, to name a few. The statement for Toulon Ltd. is an example of reporting expenses by nature.

Expenses by function relate to how various expenses are incurred within the various departments and activities of a company such as selling and administrative expenses.

The sum of all the revenues, expenses, gains, and losses to this point represents the **income or loss from continuing operations**. This is a key component used in performance analysis.

Income Tax Allocations

This is the process of allocating income tax expense to various categories within the statement of income such as income from continuing operations before taxes and discontinued operations. The purpose of these allocations is to make the information within the statements more informative and complete. For example, Toulon's statement of income for the year ending December 31, 2015, allocates tax at a rate of 30% to the following:

- Income from continuing operations of $850,000 ($2,833,000 × 30%)
- Loss from disposal of discontinued operations of $63,000

Discontinued operations

Sometimes companies will sell or shut down certain business operations because the operating segment is no longer profitable, or they may wish to focus their resources on other business operations. Examples are a major business line or geographical area. If the discontinued operation has not yet been sold, then *there must be a formal plan in place to dispose of the component within one year and to report it as a discontinued operation.*

The items reported in this section of the statement of income are to be reported net of tax, with the tax amount disclosed.

Earnings per Share

Basic earnings per share represent the amount of income attributable to each outstanding common share, as shown in the calculation below:

$$\text{Basic earnings per share (EPS)} = \frac{\text{Net income} - \text{preferred dividends}}{\text{Number of common shares outstanding}}$$

The earnings per share amounts are not required for private companies. This is because ownership of privately owned companies is often held by only a few investors, compared to publically-traded companies where shares are held by many investors.

Basic earnings per share are to be reported on the face of the statement of income as follows:

- Basic EPS from continuing operations
- Basic EPS from discontinued operations, if any

If the outstanding common shares for Toulon was 121,500, the EPS from continuing operations would be $16.32 (1,983,000 ÷ 121,500) and $(1.21) from discontinued operations ($147,000 loss ÷
121,500), as reported in their statement above. There is also a requirement to report diluted EPS but this is beyond the scope of this course.

14.6 LET US SUM UP

Explain the purpose of the statement of cash flows.

The statement of cash flows is one of the four financial statements. It highlights the net increase or decrease in the cash and cash equivalents balance during the accounting period, and details the sources and uses of cash that caused that change.

Prepare a statement of cash flows.

The operating activities section of the statement of cash flows can be prepared using the direct or indirect method. This textbook focuses only on the indirect method. The result of both methods is identical; it is only how the calculations are performed that differs. The operating activities section begins with accrual net income and, by adjusting for changes in current assets, current liabilities, adding

back depreciation expense, and adding back/subtracting losses/gains on disposal of non- current assets, arrives at net income on a cash basis. The investing activities section analyzes cash inflows and outflows from the sale and purchase of non-current assets. The finance activities section details the cash inflows and outflows resulting from the issue and payment of loans, issue and repurchase of shares, and payment of dividends.

Interpret a statement of cash flows.

A statement of cash flows contributes to the decision-making process by explaining the sources and uses of cash. The operating activities section can signal potential areas of concern by focusing on differences between accrual net income and cash basis net income. The investing activities section can highlight if cash is being used to acquire assets for generating revenue, while the financing activities section can identify where the cash to purchase those assets might be coming from. Those who use financial statements can focus on the effectiveness of management's investing and financing decisions and how these may affect future financial performance.

14.7 CHECK YOUR PROGRESS

Q-1 The following transactions were carried out by Crozier Manufacturing Limited.

Required: Indicate into which category each transaction or adjustment is placed in the statement of cash flows: operating (O), financing (F), or investing (I) activities. For non-cash investing/financing activities that are disclosed in a note to the financial statements, indicate (NC).

__________ A payment of $5,000 was made on a bank loan.
__________ Depreciation expense for equipment was $1,000.
__________ $10,000 of share capital was issued for cash.
__________ Cash dividends of $2,500 were declared and paid to shareholders.
__________ Bonds were issued in exchange for equipment costing $7,000.
__________ Land was purchased for $25,000 cash.
__________ $750 of accrued salaries was paid.

________ $10,000 of accounts receivable was collected.

________ A building was purchased for $80,000: $30,000 was paid in cash and the rest was borrowed.

________ A long-term investment in shares of another company was sold for $50,000 cash.

________ Equipment was sold for $6,000. The related accumulation depreciation was $3,000 with an original cost of $10,000.

________ $1,200 was paid for a 12-month insurance policy in effect next year.

________ A patent was amortized for $500.

________ Bonds were issued for $50,000 cash.

Q- 2 Assume the following selected income statement and balance sheet information for Larriet Inc.:

Larriet Inc.
Balance Sheet Information
(000's)

	December 31, Year 5	December 31, Year 4
Cash	$40	$22
Accounts receivable	34	39
Merchandise inventory	150	146
Prepaid expenses	3	2
Machinery	125	138
Accumulated depreciation	55	42
Accounts payable	29	31
Dividends payable	1	5
Bonds payable	15	38
Common shares	208	150
Retained earnings	44	81

Larriet Inc.
Income Statement
Year Ended December 31, Year 5
(000's)

Sales revenue		$385
Cost of goods sold	$224	
Other operating expenses	135	
Depreciation expense	25	
Loss on sale of machinery	3	(387)
Net loss		$2

Additional information:

i. Machinery costing $20 thousand was sold for cash.

ii. Machinery was purchased for cash.

iii. The change in retained earnings was caused by the net loss and the declaration of dividends.

Required:

a. Reconstruct the journal entry regarding the sale of the machinery.

b. Reconstruct the entry regarding the purchase of machinery.

c. Reconstruct the entry regarding the declaration of dividends.

d. Reconstruct the entry regarding the payment of dividends.

e. Prepare the statement of cash flows for the year ended December 31, Year 5.

Q-3 The comparative statement of financial positions of Glacier Corporation showed the following at December 31.

	2019	*2018*
Debits		
Cash	$ 10	$ 8
Accounts receivable	18	10
Merchandise inventory	24	20
Land	10	24
Plant and equipment	94	60
	$156	$122
Credits		
Accumulated depreciation	$ 14	$ 10
Accounts payable	16	12
Non-current borrowings	40	32
Common shares	60	50
Retained earnings	26	18
	$156	$122

The statement of profit and loss for 2019 was as follows:

Glacier Corporation
Statement of Profit and Loss
For the Year Ended December 31, 2019

Sales		$ 300
Cost of sales		200
Gross profit		100
Operating expenses		
Rent	$77	
Depreciation	6	83
Income from operations		17
Other gains (losses)		
Gain on sale of equipment	1	
Loss on sale of land	(4)	(3)
Net income		$ 14

Additional information:

i. Cash dividends paid during the year amounted to $6.

ii. Land was sold during the year for $10. It was originally purchased for $14.

iii. Equipment was sold during the year that originally cost $7. Carrying amount was $5.

iv. Equipment was purchased for $41.

Required:

a. Prepare a statement of cash flows for the year ended December 31, 2019.

b. Comment on the operating, financing, and investing activities of Glacier Corporation for the year ended December 31, 2019.

Q-4 The following trial balance has been prepared from the ledger of Lelie Ltd. at December 31, 2019, following its first year of operations.

	(in $000's)	
	Debits	*Credits*
Cash	$ 40	
Accounts receivable	100	
Merchandise inventory	60	
Prepaid rent	10	
Equipment	160	
Accumulated depreciation – equipment		$ 44
Patent	-0-	
Accounts payable		50
Dividends payable		10
Income taxes payable		8
Note payable – due 2023		80
Common shares		140
Retained earnings		-0-
Cash dividends	20	
Sales		225
Depreciation	44	
Cost of goods sold	100	
Selling and administrative expenses	28	
Income taxes expense	10	
Gain on sale of land		15
	$ 572	$ 572

Additional information:

i. A patent costing $30,000 was purchased, and then sold during the year for $45,000.

ii. Lelie assumed $100,000 of long-term debt during the year.

iii. Some of the principal of the long-term debt was repaid during the year.

iv. Lelie issued $40,000 of common shares for equipment. Other equipment was purchased for $120,000 cash. No equipment was sold during the year.

***Required**:*

a. Prepare a statement of cash flows for the year ended December 31, 2019.

b. Explain what the statement of cash flows tells you about Lelei Ltd. at the end of December 31, 2019.

14.8 ANSWER TO CHECK YOUR PROGRESS

Ans :1

F	A payment of $5,000 was made on a bank loan.
O	Depreciation expense for equipment was $1,000.
F	$10,000 of share capital was issued for cash.
F	Cash dividends of $2,500 were declared and paid to shareholders.
NC	Bonds were issued in exchange for equipment costing $7,000.
I	Land was purchased for $25,000 cash.
O	$750 of accrued salaries was paid.
O	$10,000 of accounts receivable was collected.
NC & I	A building was purchased for $80,000: $30,000 was paid in cash and the rest was borrowed.
I	A long-term investment in shares of another company was sold for $50,000 cash.
O & I	Equipment was sold for $6,000. The related accumulation depreciation was $3,000 with an original cost of $10,000.
O	$1,200 was paid for a 12-month insurance policy in effect next year.
O	A patent was amortized for $500.
F	Bonds were issued for $50,000 cash.

Ans-2

a. The reconstructed entry to record the sale of the machinery:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Accumulated Depreciation		?	
	Cash		?	
	Loss on Sale of Machinery (given).		3	
	Machinery (given)			20

Accumulated Depreciation

	42 Dec. 31, Year 4 bal.
Debit regarding sale ? = 12	25 Dep. Expense, Year 5
	55 Dec. 31, Year 5 bal.

Therefore, the debit to cash in the journal entry must be 5 (20-12-3).

b. The reconstructed entry to record the purchase of machinery:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Machinery		?	
	Cash			?

Machinery			
Dec. 31, Year 4 bal.	138		
Debit regarding purch.	? = 7	20	Credit regarding sale
Dec. 31, Year 5 bal.	125		

Therefore, the debit to Machinery and credit to Cash in the entry must be 7 (138-20-125).

c. The reconstructed entry to record the declaration of dividends:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Dividends or Retained Earnings		?	
	Dividends Payable			?

Retained Earnings			
		81	Dec. 31, Year 4 bal.
Year 5 Net loss	2		
Year 5 Div. Declared	? = 35		
		44	Dec. 31, Year 5 bal.

Therefore, the debit to Dividends or Retained Earnings is 35 and credit to Dividends Payable 35 (81-2-44).

d. The reconstructed entry to record the payment of dividends:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Dividends Payable		?	
	Cash			?

Therefore, the debit to Dividends Payable is 39 and the credit to Cash 39 (5+35-1).

Dividends Payable			
		5	Dec. 31, Year 4 bal.
Div. Paid Year 5	? = 39	35	Div. Declared Year 5
		1	Dec. 31, Year 5 bal.

Calculations:

Account	Balance ($000s) Year 5 Dr. (Cr.)	Year 4 Dr. (Cr.)	Change Dr.	Cr.	Explanation of Change
Cash	40	22	18		
Accounts receivable	34	39		5	Decrease in accounts receivable
Merchandise inventory	150	146	4		Increase in merchandise inventory
Prepaid expenses	3	2	1		Increase in prepaids
Machinery	125	138	7	20	Purchase in machinery for cash of 7; Sold machinery for cash of 5; Loss on sale 3
Accumulated dep.	-55	-42	12	25	Depreciation expense 25
Accounts payable	-29	-31	2		Decrease in accounts payable
Dividends payable	-1	-5	39	35	Paid dividends of 39
Bonds payable	-15	-38	23		Paid bonds 23
Common shares	-208	-150		58	Issued common shares 58
			2		Net loss 2
Retained earnings	-44	-81	35		
Total			125	143	
Change in cash			18		Net increase in cash of 18

a. The statement of cash flows is as follows:

Larriet Inc.
Statement of Cash Flows
Year Ended December 31, Year 5

Cash flows from operating activities:		
Net loss	$(2)	
Adjustments to reconcile net loss to cash provided by operating activities:		
Decrease in accounts receivable	5	
Increase in merchandise inventory	(4)	
Increase in prepaids	(1)	
Decrease in accounts payable	(2)	
Depreciation expense	25	
Loss on sale of machinery	3	
Net cash inflow from operating activities		$24
Cash flows from investing activities:		
Purchase of machinery	$(7)	
Sale of machinery	5	
Net cash outflow from investing activities		(2)
Cash flows from financing activities:		
Issued common shares	$58	
Paid bonds	(23)	
Paid dividends	(39)	
Net cash outflow from financing activities		(4)
Net increase in cash		$18
Cash at beginning of year		22
Cash at end of year		$40

Ans-3

a.

Glacier Corporation
Statement of Cash Flows
For the Year Ended December 31, 2019

Operating activities		
Net income		$ 14
Items not affecting cash flow		
Depreciation expense		6
Gain on sale of equipment (note 2)		(1)
Loss on sale of land (note 1)		4
Net changes in non-cash working capital:		
Accounts receivable, inventory and accounts payable ($4 – 8 – 4)		(8)
Cash flow from operating activities		15
Investing activities		
Proceeds from sale of equipment (note 2)	$ 6	
Proceeds from sale of land	10	
Purchase of property, plant, and equipment	(41)	
Cash flow used by investing activities		(25)
Financing activities		
Proceeds from borrowings	8	
Common shares issued	10	
Payment of dividends	(6)	
Cash flow from financing activities		12
Net increase in cash		2
Cash at beginning of year		8
Cash at end of year		$ 10

Note 1: The journal entry to record the sale of the land would be:

General Journal				
Date	Account/Explanation	PR	Debit	Credit
	Cash		10	
	Loss on Disposal		4	
	Land			14

Note 2:

Cost of equipment sold (given)	$ 7
Accumulated depreciation (derived)	(2)
Carrying amount (given)	5
Cash proceeds (derived)	(6)
Gain on sale (per income statement)	$ 1

b. Cash flow from operating activities is almost identical to net income ($15 vs $14). The company appears to be embarking on a re-capitalization project, selling equipment and investing

in new property, plant, and equipment. Most of this ($8 + 10) has been financed by issuing debt and common shares. Opening and ending cash balances are almost identical ($8 vs $10).

Ans-4

a.

Lelei Ltd.
Statement of Cash Flows
For the Year Ended December 31, 2019
($000s)

Operating activities		
Income from operations(225 – 44 – 100 – 28 – 10 + 15)		$ 58
Items not affecting cash flow		
Depreciation expense	44	
Gain on sale of patent	(15)	
Net changes in non-cash working capital:		
Increase in accounts receivable	(100)	
Increase in inventory	(60)	
Increase in prepaid rent	(10)	
Increase in accounts payable	50	
Increase in income taxes payable	8	(83)
Cash flow used by operating activities		(25)
Investing activities		
Proceeds from sale of patent	$ 45	
Purchase of equipment	(120)	
Purchase of patent	(30)	
Cash flow used by investing activities		(105)
Financing activities		
Proceeds from non-current borrowings	100	
Common shares issued (140 – 40 non-cash)	100	
Repayment of non-current borrowings (100 – 80)	(20)	
Dividends (20 – 10 dividend payable)	(10)	
Cash flow from financing activities		170
Net increase in cash		40
Cash at beginning of year		-0-
Cash at end of year		$ 40

b. The statement of cash flows shows that the company used debt and equity to finance its operations, purchase equipment, and pay dividends. The company generated more cash than it used ($40), from solely its financing activities. The cash flow used by operating ac- tivities ($25) is a concern, but on the other hand, this may be acceptable in the first year of operations.

14.11 FURTHER READING

1) Bhattacharya, Ashis; *Financial Accounting*; New Delhi: Prentice Hall of India Pvt. Ltd.
2) Maheshwari, S. N.; *Financial Accounting*; New Delhi: Vikash Publishing House Pvt. Ltd.
3) Dam, B. B. & Theory and Gautam, H. C.; *Practice of Financial Accounting*; Guwahati: Capital Publishing Company.
4) Gupta, R. L. & Radhaswamy, M.; *Accountancy*; New Delhi: Sultan Chand & Sons.
5) Introduction to Financial Accounting by Henry Dauderis & David Annand
   Edited by Athabasca University

14.12 ASSIGNMENT

1. Using an example, explain in your own words the function of a statement of cash flows. Why is it prepared? What does it communicate to the reader of financial statements? What is its advantage over a balance sheet? over an income statement?
2. Why are financing and investing activities of a corporation important to financial statement readers?
3. How does an increase in accounts receivable during the year affect the cash flow from operating activities?
4. What effect does the declaration of a cash dividend have on cash flow? the payment of a dividend declared and paid during the current year? the payment of a dividend declared in the preceding year?
5. Why may a change in the Short-term investments account not affect the amount of cash provided by operations?
6. Why is it possible that cash may have decreased during the year, even though there has been a substantial net income during the same period?
7. Describe common transactions affecting balance sheet accounts that use cash. Explain how these items are analysed to identify cash flows that have occurred during the year.