

NATIONAL OPEN UNIVERSITY OF NIGERIA

FACULTY OF AGRICUTURAL SCIENCES

COURSE CODE:AEA306

COURSE TITLE:FARM RECORDS AND ACCOUNTING

Course Code: AEA306

Course Title: Farm Records and Accounting

Course Developer Dr Joseph Olumide Oseni
Writer Department of Agricultural Economics and Extension,
Federal University of Technology
PMB 704, Akure
Ondo State.

Course Editor:

Programme Leader:

Course Coordinator:

NATIONAL OPEN UNIVERSITY OF NIGERIA

CONTENTS	PAGE
Introduction.....	3
What you will Learn in this course.....	3
Course Aim.....	3
Course Objectives.....	4
Working through this course.....	4
The Course Material.....	5
Study Units.....	6
Presentation Schedule.....	6
Assessment.....	6
Tutor-Marked Assignment.....	7
Final Examination and Grading.....	7
Course Marking Scheme.....	8
Facilitators/Tutors and Tutorials.....	8
Summary.....	9

1.0 INTRODUCTION

The farming environment is dynamic - always changing. It faces changes in technology, prices, climate and institutions. These changes affect the performance of an enterprise or enterprises in a farm.

Records are essential in any management operation. A good record keeping system will allow managers to monitor and evaluate the performance of their production system. It will help them identify problem area in the production plan, and to make the necessary corrective measures. Similarly complete records are useful to the manager and technical advisors in assessing any problems in determining factors that contribute to these problems, and in deciding what to do to control these problems.

Farm Records and Accounting a two credit degree course is one of the fundamental courses for Bachelor Degree Programme in Agriculture (B.Sc) and Agricultural Education (B.Sc.Ed) in any University in the world at large.

There are three modules consisting 15 units altogether. The first module starts with farm records. This gives a focus on Types and uses of farm records, analyzing farm records and computerizing farm records.

The second module focuses on Bookkeeping and Accounting which will enable you to get acquainted with the various books used in keeping farm accounts as well as how to use computer software in accounting.

The third module discusses Trial balance and final accounts. Here you will learn about the limitations and common errors of the trial balance. In addition, you will also learn the various adjustments that needed to be made in the final account of a farm firm

i. What you will learn in this course

You will learn about Farm records, Bookkeeping and Accounting, Trial balance and final Accounts.

3.0 Course Aims

The aim of this course is to create an indepth knowledge of farm records and Accounting. This will enable farm managers and other workers on the farm to appreciate the role of up-to-date farm records and efficient accounting in sustainable agricultural development. Thus, the aim of farm records and accounting is to:

- i. Explain the meaning and scope of farm records.
- ii. Discuss Bookkeeping and Accounting
- iii. Discuss Trial Balance and final Accounts.

4.0 Course objectives

In order to achieve the course aims, there are some overall objectives set for the course. Besides, each module and each unit has their respective objectives which you and your facilitator must constantly refer to, so that no objective is skipped. All the modules and unit objectives are specifics of the course objectives. The course objectives are stated as follows:

- i. Identify the types and uses of farm records.
- ii. State the strategies and techniques for computerizing farm records.
- iii. Explain the concept of bookkeeping
- iv. Discuss the various books used for bookkeeping.
- v. Prepare balance sheet, Profit and loss account and the cashflow statement.
- vi. Explain the necessary adjustment in the final accounts.
- vii. Prepare final accounts of a farm firm

1.0 Working through this course

This course contains some packages that you will be given at the beginning of the semester: one of them is the course material. Your full participation in both the continuous assessment and the final written examination are two areas expected of you to fulfill at the end of the course. The 15 units of the course packaged for you in modules are as shown below:

Module 1 Farm Records

- Unit: 1 Meaning and Scope of Farm records
 2 Types and uses of farm records
 3 Developing and improving farm records
 4 Analyzing farm records
 5 Computerized farm record keeping

Module 2: Bookkeeping and Accounting

- Unit: 1 Meaning and scope of bookkeeping
5.0 Bookkeeping
6.0 Meaning and Scope of farm accounting
7.0 System of farm accounting
8.0 Computerized farm Accounting

Module 3: Trial Balance and Final Accounts

- Unit: 1 Meaning and Scope of Trial Balance
 2 Limitations and common errors of Trial Balance
 3 Final Accounts
 4 Adjustments in the final Account I
 5 Adjustments in the final Account II

From all indications, you should be able to complete two credit unit about 15 weeks in a semester. Well spread out in each unit are: Introduction to the unit, specific objectives, body of the unit, conclusion, summary, Tutor Marked Assignments and References.

Course Material

Major course materials of the course are as follows:

- i. **Course Guide:** This looks like a blue print that spells out what constitutes the course itself.
- ii. **Study units:** Each of these provides an overview of the content and number of units that will be covered in this course.

- iii. **Assignment files:** These files contain challenging tutorial questions termed as Tutor -Marked Assignment (TMAs) that will enable you to assess yourself at the end of every assignment that will be handed out by your tutor.
- iv. **Presentation schedule:** Certainly, the modus operandis (e.g time table, hours expected on each unit/ Module, assignment submission procedure on how it will be self tutored with the monitoring techniques by Noun will be in the information package of this schedule).

Study Units

Details of the study units have earlier been presented. It is spelt out in modules with corresponding units and titles. You will be expected to spend 2-3 hours in studying a unit.

References and other Resources

Apart from this study unit, some reference materials are provided as additional reading materials to support your study. You may come across them in Noun library or elsewhere.

Instructional Media

As an open and distance learning University several and relevant multi-media that can make learning possible are available.

Assignment File

This has been discussed later. It is mandatory to always turn in your assignments to any tutor assigned.

Assessment

You will be expected to complete at least ten assignments by the end of the course. Some of these will be in the form of a project and continuous assessment (CA). You will be expected to write a final examination in the course. The overall score in the course will be a sum of 40% of CA and 60% of written examination. You will be expected to have 50% in the CA and 50% in the written examination; anything short of this will count as failure.

Tutor -Marked Assignment

The TMA is a continuous assessment component of your course. It accounts for 30% of the total score. You will be given four (4) TMAs to answer. Three of these must be answered before you are allowed to sit for the end of course examination. The TMAs would be given to you by your facilitator and returned after you have done the assignment. Assignment questions for the units in this course are contained in the assignment file. You will be able to complete your assignment from information and materials contained in your reading, references and study units. However, it is desirable in all degree level of education to demonstrate that you have read and researched more into your references, which will give you a wider view point and may provide you with a deeper understanding of the subject.

Make sure that each assignment reaches your facilitator on or before the deadline given in the presentation schedule and assignment file. If for any reason you can not complete your work on time, contact your facilitator before the assignment is due to discuss the possibility of an extension. Extension will not be granted after the due date unless there are exceptional circumstances.

Final Examination and Grading

The end of course examination for introduction to Farm Records and Accounting will be for about 3 hours and it has a value of 70% of the total course work. The examination will consist of questions, which will reflect the type of self -testing, practice exercise and tutor -marked assignment problems you have previously encountered. All areas of the course will be assessed.

Use the time between finishing the last unit and sitting for the examination to revise the whole course. You might find it useful to review your self-test, TMAs and comments on them before the examination. The end of course examination covers information from all parts of the course.

Course Marking Scheme

Assignment	Marks
Assignments 1-4	Four assignments, best three marks of the four count at 10% each - 30% of course marks.
End of course examination	70% of overall course marks.
Total	100% of course materials.

Facilitators/Tutors and Tutorials

There are 16 hours of tutorials provided in support of this course. You will be notified of the dates, times and location of these tutorials as well as the name and phone number of your facilitator, as soon as you are allocated a tutorial group.

Your facilitator will mark and comment on your assignments, keep a close watch on your progress and any difficulties you might face and provide assistance to you during the course. You are expected to mail your Tutor Marked Assignment to your facilitator before the schedule date (at least two working days are required). They will be marked by your tutor and returned to you as soon as possible.

Do not delay to contact your facilitator by telephone or e-mail if you need assistance.

The following might be circumstances in which you would find assistance necessary, hence you would have to contact your facilitator if:

- 2 You do not understand any part of the study or the assigned readings.
- 3 You have difficulty with the self-tests
- 4 You have a question or problem with an assignment or with the grading of an assignment.

You should endeavour to attend the tutorials. This is the only chance to have face to face contact with your course facilitator and to ask questions which are answered instantly. You can raise any problem encountered in the course of your study.

To gain much benefit from course tutorials prepare a question list before attending them. You will learn a lot from participating actively in discussions.

Summary

Farm Records and Accounting is a course that intends to provide concept of the discipline and is concerned with keeping accurate farm records and maintaining good accounts. Upon completing this course, you will be equipped with the basic knowledge of farm records, bookkeeping and accounting as well as Trial balance and final account. In addition you will be able to answer the following questions:

- 1.0 What are farm records?
- 2.0 What are the basic things to consider in selecting a computer records keeping system?
- 3.0 Which of the computer software known to you will you recommend as the best for farm business.
- 4.0 Distinguish between bookkeeping and Accounting
- 5.0 Explain the three major division of books used in bookkeeping and accounting.
- 6.0 Who is a bookkeeper?
- 7.0 State and explain the major methods of bookkeeping.
- 8.0 State and explain the golden rules of bookkeeping
- 9.0 What are the four variants of the farm accounting system?
- 10.0 What are the four major ways by which farm assets can be valued?
- 11.0 How can complete farm accounting be accomplished electronically?

Of course, the list of questions that you can answer is not limited to the above list. To gain the most from this course you should endeavour to apply the principles you have learnt to your understanding of farm records and accounting.

I wish you success in the course and I hope that you will find it both interesting and useful.

Course Code: AEA306

Course Title: Farm Records and Accounting

Course Developer: Dr Joseph Olumide Oseni

Writer: Department of Agricultural Economics and Extension,
Federal University of Technology
PMB 704, Akure
Ondo State.

Course Editor:

Programme Leader:

Course Coordinator:

NATIONAL OPEN UNIVERSITY OF NIGERIA

AEA306: FARM RECORDS AND ACCOUNTING

Contents

Module One: Farm Records

- Unit 1 Meaning and Scope of farm records
- 2 Types and uses of farm records
- 3 Developing and improving farm records
- 4 Analyzing Farm Records
- 5 Computerized Farm Record keeping

Module Two: Bookkeeping and Accounting

- Unit 1 Meaning and scope of bookkeeping
- 2 Book keeping
- 3 Meaning and scope of farm Accounting
- 4 System of farm Accounting
- 5 Computerized Farm Accounting

Module Three: Trial Balance and final Accounts

- Unit 1 Meaning and scope of Trial Balance
- 2 Limitations and common errors of Trial Balance
- 3 Final Accounts
- 4 Adjustments in the final Accounts I
- 5 Adjustments in the final Accounts II

MODULE ONE: FARM RECORDS

Unit 1: Meaning and scope of farm records

Unit 2: Types and uses of farm records

Unit 3: Developing and improving farm records

Unit 4: Analyzing farm records

Unit 5: Computerized farm record keeping

Unit 1: Meaning and scope of farm records

1.0 Introduction

2.0 Objectives

3.0 The body of the unit

3.1 Definition and scope of farm records

3.2 Principles of record keeping

4.0 Conclusion

5.0 Summary

6.0 Tutor - Marked Assignments

7.0 References and other sources

1.0 Introduction

In all spheres of life, adequate information is necessary for decision making. This is also the case for farming decisions. Records are essential in any management operation.

2.0 Objectives

It is expected that at the end of this unit, you should be able to:

- Define and explain the scope of farm records.

3.0 Body of the unit

3.1 Definition and scope of farm records.

Records are statements of fact or data concerning a specific subject which may be specified in physical, monetary, mathematical or statistical terms. Farm records pertain to information recorded on the day-to-day operation of a particular farm.

Farm records can be defined as systematic documentation of all activities taking place in a farm enterprise over a given period of time. It is an act of writing down every activity engaged in on the farm in every production season and at different stages of the production process up to the final disposal of the goods and services to the ultimate consumer.

Farm record keeping is more than just keeping track of what crop was planted in what field, it is a concept applicable to the entire farm operation.

A complete farm record will include all daily activities and transactions and with a proper accounting system it should be possible to have a complete estimate of the profit or loss statement at the end of the year. By keeping a complete farm record on a yearly basis it is possible to have a comparison between years and thereby determine the rate of growth or deterioration of the farm.

There are three basic types of farm records:

1. Resources inventories
2. Production accounts of livestock and crop operations.
3. Income and expenses records.

As a farmer, you use resources such as land, labour, machinery, breeding stock management and financial capital. You must assign value to these resources and

maintain current inventories so that you know the foundation from which you operate, from this resource base, you produce food and fibre. The production account of livestock and crop shows how this resource base is combined with other inputs to yield physical output. Consequently, production records, such as the relationship of feed to weight gain, cow to number of calves, fertilizer to crop yield, or land to total production, are most critical to your farm's profits. Because farmers interact in a marked economy, the cost of the feed and revenue from the market hog or the cost of the fertilizer and the price of the grain are equally important. These income and expense records are related to each other and translate production accounts into Naira and kobo.

3.2 Principles of Record Keeping

There are some general principles which apply to all record keeping and these are as stated below:

1. All records, to be of value, must be accurate, neat and full. One way of making sure that records are accurate is by filling them in as soon as possible after the operation or transaction and by checking regularly.
2. All the results of record keeping should be compared with some standards which may be the results for previous years or the results for other farms. By comparing results and discussing problems together, farmers can help each other to improve their management.
3. The record keeping system should fit into the farm organization or framework.
4. The person responsible for keeping the records should develop a habit of regularly and accurately posting transactions.
5. All financial transactions should be made through the bank and the monthly statement should be reconciled with the cheque book and record keeping system.

4.0 Conclusion

We have learnt in this unit that farm record keeping is more than just keeping track of what crop was planted in what field. It is a concept applicable to the entire farm operations. Some of the principles of record keeping were enumerated.

5.0 Summary

You have learnt in this unit that:

- Farm records can be defined as the systematic documentation of all activities taking place in a farm enterprise over a given period of time.
- There are three types of farm records: resources inventories, production records and income and expense records.
- For all records to be of value it must be accurate, neat, full, current and simple.

6.0 Tutor Marked Assignment

1. What are farm records?
2. List and explain the various farm records a farmer is expected to keep on his farm.
3. List and explain the principles guiding keeping of good farm records.

7.0 References and Other Sources

Olukosi, JO and P.O Erhabor (1988): Introduction to Farm Management Economics: Principles and Applications. AGITAB Publishers Ltd, Zaria PP 21 - 22.

Gerloff, D.C and R.W Holland (2006): Establishing and using a farm financial Record - keeping system: The University of Tennessee Agricultural Extension Service U7 PB 1540.

Unit 2: Types and uses of farm Records

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the unit
 - 3.1 Types of Farm Records
 - 3.2 Uses of Farm Records
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

Records are important to the financial health of the farm. Good records do not ensure your farm will be successful, however success is unlikely without them. Accurate and up-to-date records are essential to successful farm management. Before any financial, budgeting or financial decisions can be made, farm records must be maintained.

Farm records are like report cards students receive in school, with a farm report card, you can tell how well you are managing your operation compared with other producers in your “class”. You can also see the strengths and weaknesses of your farm operation. In this unit, attempts will be made to highlight the various uses of farm records.

2.0 Objectives

It is expected that at the end of this unit, you should be able to:

- State and explain the various types of farm records
- State and explain the uses of farm records.

3.0 The Body of the Unit

3.1 Types of farm Records

There are three basic types of farm records: resources inventories production accounts of livestock and crop operations, and income and expense records.

Records Inventories - As a farmer you use resources such as land labour, machinery, breeding stock, Management and financial capital.

You must assign value to these resources and maintain current inventories so that you know the foundation from which you operate, from this resources base, you produce food and fiber.

Production accounts of livestock and crops - The production accounts of livestock and crop show how this resources base is combined with other inputs to yield physical output, consequently production records such, as the relationship of feed to weight gain, cow to number of calves, fertilizer to crop yield, or land to total production, are most critical to your farm’s profits.

Income and Expense records - because farmers interacts in a market economy, the cost of the feed and revenue from the market hog or the cost of the fertilizer and the price of

grain, are equally important. These income and expense records are related to each other and translate production account into Naira and kobo (fig 1).

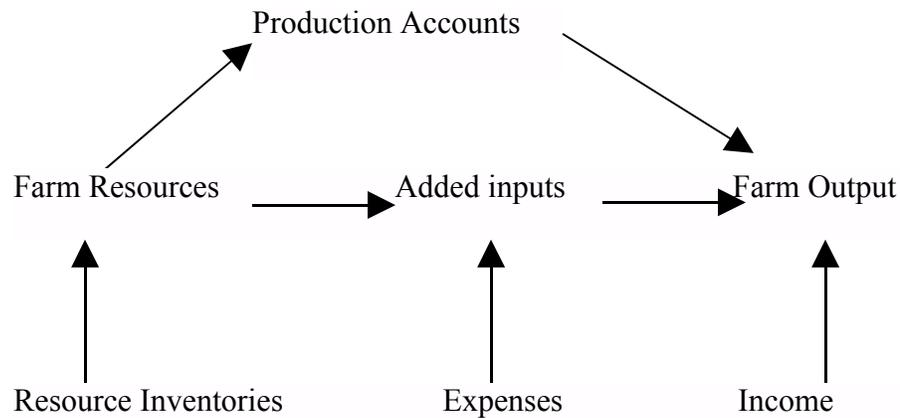


Fig 1: Types of Farm Records

3.2 Uses of Farm Records

Resources Inventories

You must count and assign value to your resources to inventory your farm. These resources include both assets and liabilities. Assets are all items you own; liabilities indicate what you owe. Counting assets is relatively easy. With a notebook and paper, walk around your farm and survey your assets. Record the number of milk cows, hectares of tilled land etc valuing assets, is more difficult. Assets such as grain will probably be valued at the net market price for which they could be sold. Tractor could be valued at their original cost minus depreciation. Similarly land could be valued at its market price (if developed for residential houses) or at its agricultural value. Liabilities are easier than assets to count and value. A listing of debts to banks and other creditors usually is sufficient. The only difficulty is adjusting for accrued interest.

Resources can be counted and assigned a value more often, but most farmers find an end - of year valuation most useful. Resources inventories are not a “flow” concept, but a “stock” measurement. The most direct application of resources inventory, is completing a balance sheet to determine your networth. A resource inventory also is useful for computing non cash expenses, such as depreciation. Resources on the farm

often are used as collateral for a loan. A resource inventory provides a helpful summary of those assets to be used as collateral.

Finally, with an up-to-date inventory of your farm's resources, you can consider options for growth and diversifications more carefully and efficiently.

Production Accounts.

Production Accounts are used to measure the performance of crop and livestock enterprises on the farm, some production information can be derived from income and expense records, for example where total kilogramme purchased might be noted. This information while useful, usually is not specific or complete enough. More detailed production accounts can and should be kept, usually classified as crop, livestock or labour records.

Often included under crop records are farm maps. Farm maps are used to describe soil conditions cropping patterns, field layouts and building locations. Other written crop records show crop rotations, yields, fertilizer rates and pesticide applications. This information can be summarized and will indicate the efficiency of production.

Livestock and poultry records usually include subsections for mortality, breeding, performance and feed information. Mortality records list the number of livestock and track disease problems. Breeding records ensure that only superior individuals or groups of individuals are used to parent offspring with desired characteristics.

Performance records for livestock are divided between birth and productive information. Birth records indicate date of birth, important dates in the animal's life, parental evaluation and weaning information. Production records refer more directly to herd size, rate of gain, kilogramme sold and purchased.

Finally, feed records are important in evaluating overall production efficiency. Feed normally constitutes at least 50percent of the total cost of raising an animal for meat. The type of feed ration, its formulation and the rate of feeding should be monitored closely.

Another major category of production record keeping is labour. Labour records are important particularly when labour shortages are a problem. By knowing the amount and timing of labour required per operation of an enterprise you can better plan what enterprises are feasible when faced with labour constraints on the farm.

Income and Expense Records.

A transactions journal and general ledger are useful for recoding income and expense records. In the transactions journal, you record financial transactions as they happen. In the general ledger, you begin organizing your farm records into a meaningful format. Important uses of the transactions journal and general ledger are to provide information for the income statement and cash flow statement. With the income statement, you can calculate farm profit. The cash flow statement is a summary of the timing and flow of Naira in and out of the farm business. It helps you meet cash obligations.

For most farmers, a simple yet suitable transactions journal is the farm checkbook. It helps you keep track of the majority of income and expense transactions needed for a complete set of records, with the information from the transactions journal; the farmer organizes cash receipts and expenses in the general ledger by date and category.

4.0 Conclusion

In this unit, we have learnt that accurate and up-to-date records are essential to successful farm management. Records are used among others to: evaluate past performance of the operation, provide a financial picture of the present situation, and serve as a planning guide for future decisions.

5.0 Summary

In this unit, we have learnt that:

- There are three basic types of farm records: resource inventories, production accounts of livestock and crop operation, and income and expense records
- Farm records are used among others to : evaluate past performance of the operation, provide a financial picture of the present situation and serve as a planning guide for future decisions.

6.0 Tutor Marked Assignment

1. State and explain the various types of farm records
2. State and explain the various uses of farm records

7.0 References and Other Sources

Hanson J.C, D.M, Johnson and B.V. Lesley (1991): Developing and Improving Your Farm Records. Fact sheet P 542, Maryland Cooperative Extension, University of Maryland.

Jose, P (1994): Financial Record Keeping Software Review. Texas Agricultural Extension Service Bulletin B - 5089, Texas A and M University system, May 1994

Unit 3: Developing and improving farm records

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the Unit
 - 3.1 Developing farm Records
 - 3.2 Improving farm Records
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignments
- 7.0 References and other sources

1.0 Introduction

In this unit you will learn about developing and improving farm records. You will be acquainted with record keeping and record analysis, selecting a record keeping system and comparison of the hand and computer system of record keeping.

2.0 Objectives

It is expected that, at the end of this unit, you should be able to:

- Explain the concept of record keeping and record analysis
- Compare the hand and computer system of record keeping
- Explain how farm records can be improved.

3.0 The body of the Unit

3.1 Developing farm records

Record keeping refers to keeping, filing, categorizing and maintaining farm financial and production information.

Record analysis refers to evaluating farm records. The evaluation process allows a farm manager to make informed decisions based on actual (or projected) farm performance. Obviously, record analysis cannot take place within first keeping records.

The hand system and the computer system are the two methods of developing and keeping farm records.

3.1.1 The hand system

A large number of hand systems are available. One of the simplest systems involves the recording by hand of all financial transactions in a journal format. Purchases and sales activities are listed by hand as they occur. The enterprises show the date, the item involved (quantity, size etc) and cash involved in sale or purchase.

Table 1: Example of whole farm Record keeping

Date	Description	Income			Expense		
		Calves	Cull Cows	Maize	Feed	Supplies	Fuel
10/1	Sold 10 calves at ₦10,000	₦100,00					
10/1	Purchased feed (2 tons)				₦40,000		
10/3	Sold 2 cows at ₦60,000		₦120,000				
10/6	Purchased supplies					₦20,000	
10/8	Purchased 1500 litres of fuel						₦97,500
10/11	Sold 2000kg of maize			₦200,000			

For example Table 1 portrays a whole-farm record-keeping system. The date and a short description of each transactions are listed first followed by the Naira amount of each transaction under the appropriate income or expense category. The number of income and expense categories depends on the amount of specificity desired by the farm manager.

Table 2 is smaller to Table 1 but adds an enterprise accounting section. In addition to the income and expense categories, the transaction is also listed in an enterprise category. For example, “the purchased supplies” expense of ₦20,000 is first listed under the supplies category. But ₦16,000 of the expense is listed under “cow/calf” expenses and ₦4,000 is listed under maize. Again the number of enterprises used depends on the amount of detail desired by the farm manager.

Table 2: Example of Enterprise Record Keeping

Income

Date	Description	Income			Expense			Enterprises			
		Calves	Cull Cows	Maize	Feed	Supplies	Fuel	Cow/Calf		Maize	
								Income	Expense	Income	Expense
10/1	Sold 10 calves at 10,000	₦100,000									
10/1	Purchased feed (2 tons)				₦ 40,000				₦ 40,000		
10/3	Sold 2 cows at N60,000		₦120,000					₦ 120,000			
10/6	Purchased supplies					₦ 20,000			₦ 16,000		₦ 4,000
10/8	Purchased 1500 litres of fuel						₦ 97,500		₦ 2,500		₦ 95,000
10/11	Sold 2000kg of maize			₦ 200,000						N200,000	

Regardless of the system selected, entries should be made regularly. In addition, disciplining oneself to make easy transaction through a bank checking account will ease record keeping difficulties. And reconciling bank statements with farm records ensures accuracy.

3.1.2 Computerized record keeping system.

This entails the use of different software package in record keeping. In 1994 Pena et al evaluated six computerized farm record keeping programs with each program having some unique features.

Selecting a computerized record keeping program should be done on the basis of features needed. Some program will allow for enterprise accounting, some programs will calculate payroll reports for employees. Few financial record keeping programs allow for production records to be kept simultaneously with financial records. For example, in many programs, sales of grain or livestock can be reported in Naira only, with no accounting for kilogrammes

A computerized record-keeping system will not necessarily save time. Its real advantage is in record analysis. Once the information is posted in the computer software reports and analysis can be created, changed and printed. Computerized systems quickly

and accurately sort and report a great deal of information. They can also provide monthly or annual summaries for identifying strengths and weaknesses of an operation

Table 3: Compare of the hand system and Computerized system of record keeping

Hand System	Computer System
Low initial out-of-pocket expense	Higher initial out-of-pocket expense
Easy to implement	May require significant study
Time consuming	Fast
More opportunities to make mistakes	Accurate
Limited in extent of analysis without extraordinary investment of time and effort	Can be a powerful analysis tool

3.2 Improving Farm Records

Accurate records are essential for evaluating your farms performance: accurate analysis required accurate data. Too often farmers rely on publications which describe an average farm instead of personal records that describe their farm. To make the best financial decisions concerning your farm, use data collected from your farm. It is possible to make the job of record keeping easier by using forms and accounting systems designed especially for the farm. A good source for record keeping books is your local extension agent or agricultural lender. Also software packages for farm record keeping can be purchased for your personal computer.

Accuracy is just as important in management record keeping as in tax and financial record keeping. If the management information isn't accurate, it may do more harm than if you didn't have it at all. With physical quantities, check sheets are recommended as a tool for testing the equality of the sources and uses of quantities and thereby testing the accuracy of quantity information. The sources/amount of account for should equal or at least closely approximate the uses/amount accounted for. Quantity sources typically include beginning inventory quantity, quantity purchased, quantity produced and quantity transfer in from other production enterprises/production centers. Uses typically include: quantity sold, quantity fed if feed or grain, quantity spoiled or death loss in livestock, quantity transferred out to other enterprises/ production centers,

and ending inventory quantity. Inventory change is a critical element if quantities are to coincide with accrual adjusted financial measures.

Completeness is another matter entirely. A farmer could wear himself out keeping track of every type of information that might remotely be useful for management analysis purposes. The appropriate criteria for how much and what management information to record are:

1. Does the benefit of recording and using the information sufficiently exceed the cost to make it worthwhile?
2. If the information is collated, will it be used to influence farm decision making?

As you try to apply these criteria, it may be helpful to think about what information is likely to change how you operate the farm. Information that will change how you operate and lead to improved yields would seem to produce a net benefit. Unfortunately, we generally don't have the luxury of knowing that the information will pay off. But, it is a good idea to have a plan in mind about how the management information will be used before investing large amounts of time and money collecting that information. Management records are only useful when they are used.

4.0 Conclusion

Farmers have to continually make management decisions, as we have so far identified. These management decisions determine the outcome of a farm operation in relation to investment undertaken, financing of the operation, protection, or custodial and consumption behaviour of the farm household. Thus, to make good decisions, farmers must have relevant information

5.0 Summary

In this unit you have learnt that:

- Keeping records are essential to the efficient management of a farm business
- Accurate records and resulting analyses help farmers make financial and production decisions
- Traditional hand record- keeping systems continue to work well for many farmers

- Computerized record keeping and analysis program have been accepted and used by a number of farmers also
- Developing and using a farm record keeping system will allow the farm manager to make more informed decisions affecting the profitability of the farm

6.0 Tutor - Marked Assignment

1. Differentiate between record keeping and record analysis
2. Compare and contrast hand system and computerized system of record keeping.

7.0 References and Other Sources.

Gerloff, D.C and R.W. Holland (2006) Establishing and using a farm financial record-keeping system. The University of Tennessee Agricultural Extension Source UT PB 1540

Jose, P (1994): Financial Record keeping Software Review Texas Agricultural Extension Service Bulletin B-5089, Texas A&M University system, May 1994.

Unit 4: Analyzing farm Records

12.0 Introduction

13.0 Objectives

14.0 The Body of the Unit

3.1 Analyzing Farm Records

3.2 Financial statements and list of Required Records

4.0 Conclusion

5.0 Summary

6.0 Tutor Marked Assignment

7.0 References and other sources

1.0 Introduction

Once a farm record keeping system has been established analyzing the records can begin. Decision making can be greatly enhanced by analyzing both production and financial records and their impact on profitability. In this unit you will learn about a number of financial analysis tools that can be used when accurate and complete farm records are available.

2.0 Objectives

It is expected that, at the end of this unit, you should be able to :

- Discuss the various methods of analyzing farm records.

3.0 The body of the unit

3.1 Analyzing Farm Records

A number of financial analysis tools can be used when accurate and complete farm records are available. These tools include the balance sheet, income statement and projected monthly cash flow statement (including family living expenses). These three financial statements provide information for making short and long term financial decisions.

3.1.1 The Balance Sheet

Also known as the financial statement or statement of networth. The balance sheet provides an overall financial snapshot of the farm business on a specific date. It lists all of the assets (property) and liabilities (loans) of the business as of the balance sheet date. Income and expense records are not needed for the balance sheet. A value for each asset and the outstanding balance for each liability is given in the balance sheet. Ideally, the balance sheet should separate assets and liabilities into current asset (less than one year of life), intermediate (one to seven years of life) and long-term (longer than seven years of life, mainly buildings and land) categories and should list cost (original cost less depreciation) and market value (current expected sale price) for each.

The balance sheet gives the farm manager a “snapshot” of the networth on a specific date. The networth is the value of all assets on the farm less the amount of money owed against those assets.

Some of the ratios and relationships on a typical networth statement are examined below.

1. Current Ratio (Liquidity) It is a measure of a business’ ability to meet current debt obligations as they come due without disrupting normal operations.

The ratio is calculated by dividing the current assets by the current liabilities.

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

As a general rule, two Naira of current assets to one naira of current liabilities represents a strong ratio. A current ratio of 1.5:1 is good. 1 to 1 is weak and <1 to 1 often results in cashflow problems.

2. Debt to Asset Ratio (Solvency)

It is a measure of the business’ ability to meet its total debt obligations, if all the assets were to be sold. It provides an indication of the business ability to continue in the event of severe financial adversity caused by perils such as drought, excess moisture or a decline in commodity prices. It also shows the percentage of the assets that are financed by outside creditors. The ratio is calculated by dividing the total liabilities by the total assets and is expressed as a percentage.

$$\text{Debt to Asset ratio} = \frac{\text{Total liabilities}}{\text{Total Assets}} \times \frac{100}{1}$$

As a general rule, a farm business having under 25% of its assets financed is in a fairly strong position while between 25% to 40% is moderate, and between 40% and 60% is in an increasingly weaker position. The higher the debt ratio, expressed as a percentage the greater the financial risk as a result of the higher borrowing costs.

3. Earned financial progress (profitability)

Earned financial progress refers to the increase in the farm business networth from the beginning of the period to the end of the period as a result of the income earned by the business. The key word is earned’ which excludes changes in networth as a result of an owner’s contributions to the business, the gain on the sale of the assets or the re-

evaluation of the assets including land, buildings and breeding stock. It is important to track the increases to networth that relate directly to income earned by the business as opposed to other adjustments or transactions.

3.1.2 Income Statement

Other names used for this important accounting statement include: a profit and loss statement, an operating statement and an income and expense statement. The income statement lists the income and expenses of a business over a period of time called the accounting period.

Year - to year profits are calculated on the income statement also known as the profit/loss statement. The income statement is used to calculate net cash income, adjusted by changes in inventories and capital items.

The Net farm income refers to the 'bottom line' profit that is earned (or projected to earn) by the business during the accounting period. The Net Farm Income provides the answer to the question of how much profit the farm has made or is projected to make, in the business plan.

Analyzing the Net Farm Income as a return on the farm assets and equity (networth) can also be informative. Since the Net Farm Income represents the return the farm earns on investment.

The measures of profitability are as discussed below.

1. Returns on Assets (ROA)

It is a measure of profitability measuring the rate of return that the farm business earns on its average asset base over the period. The higher the return, the more profitable the farm business.

$$\text{ROA} = \frac{\text{Net Farm Income} + \text{Interest expense} - \text{labour}}{\text{Total Farm Assets (Average)}} \times \frac{100}{1}$$

2. Return on Equity (ROE)

It is a measure of the return to the networth (equity) in the business. The farm equity is the capital that could be invested elsewhere (if you were not farming) and so this analysis provides an interesting perspective to see just how good a return a farmer is receiving on his investment in farming as compared to other alternatives. It is calculated by dividing the Net Farm Income less the unpaid labour/management costs, by the

average value of the farm equity (networth) for the period and is expressed as a percentage.

$$\text{ROE} = \frac{\text{Net Farm Income} - \text{Labour}}{\text{Farm Equity (average)}} \times 100$$

A return on equity exceeding the return on assets indicated an economical use of borrowed funds. In other words, it paid to borrow money because the return on this borrowed capital was greater than the cost of borrowing.

3. Expense/Revenue Ratio

Shows the percentage of the farm income that is required to cover the operating expenses, excluding the principal and interest payments. The ratio is calculated by dividing the operating expenses by the value of the farm production and is expressed as a percentage.

$$\text{Expenses/Revenue Ratio} = \frac{\text{Operating expenses}}{\text{Value of farm production}} \times 100$$

The value of farm production is the total value of the farm sales less the cost of purchased feeds, grain and market livestock.

3.1.3 Cash flow

The cashflow projection stimulated the anticipated financial activity that will flow through the farm bank account during the accounting period.

The projected monthly cashflow statement is used to look ahead to the next year of operations. By projecting a cashflow for the next year, potential cash shortfalls can be noted and appropriate changes in the farm operation can be analyzed.

3.2 Financial statement and list of Required Records

Table 4 illustrates the kinds of records that go into the making of financial statements and production summaries. The left column contains the financial or production statement desired by the farm manager. The right column contains the records required to complete the statement.

Records can be used for more than one statement for example, “Debt payments” are used in the income statement, cashflow statement and in income taxes, likewise,

“Farm Income and Expense” are used in the Income statement, Cashflow statement, Enterprise Analysis and Income Taxes.

Table 4: Financial Statements and list of Required Records.

Statement	Records Required
Balance sheet	Farm Assets cost and Value. Farm and Personal Assets changes, Livestock, Crop and other products Inventories, Loan balances
Cash flow	Farm Income and Expenses Non - Farm Income and Expenses Debt payments.
Enterprise Analysis	Farm Income and Expenses. Livestock and Crop yields.
Income Statement	Farm Income and Expenses Interest Payments Livestock and Grain Inventories Accounts payable & Receivable
Income Taxes	Farm Income and Expenses Non-Farm Income and expenses, Interest Payments, Depreciation Schedule

4.0 Conclusion

In this unit you have attempted to learn about how farm records are used to analyze a farm business, as well as the financial statements and list of required records.

5.0 Summary

In this unit, you have learnt that:

- A number of financial analysis tools-The balance sheet, income statement and projected cashflow statement can be used to analyze a farm business when accurate and complete farm records are available.
- The balance sheet provides an overall financial snapshot of the farm business on specific date.
- The income statement is used to calculate net cash income, adjusted by changes in inventories and capital items.
- The projected monthly cashflow statement is used to look ahead to the next year of operations. By projecting a cashflow for the next year, potential cash shortfalls can be noted and appropriate changes in the farm operation can be analyzed.

- There are some records required for some financial statements. For instance in preparing the balance sheet, records needed include: farm Assets cost and value, farm and personal assets, changes in livestock, crop and other product inventories, loan balances.

6.0 Tutor Marked Assignment

1. Use your knowledge of a balance sheet and ratio analysis to complete the balance sheet below. Given that the net capital ratio = 4, the current ratio = 2 and the intermediate ratio = 3

Assets	Liabilities
Total Current Assets ₦ 400,000	Total current Liabilities _____
Total Intermediate Assets _____	Total Intermediate Liabilities _____
Total Fixed Assets _____	Total Long-term Liabilities _____
	Total Liabilities Network _____
Total Assets _____	Total Liabilities and Network ₦4,000.000

2. Of what use is the Returns on Equity ratio in farm financial analysis.?

7.0 References and other sources

Gerloff, D.C and R.W Holland (2006) Establishing and using a farm financial Record keeping system. The University of Tennessee Agricultural Extension Service UT PB 1540

Moore, K.J (2002): “What are the most necessary farm records and how do i interpret and use them” Frequently Asked farm Management and Marketing Questions (FAO No 9). The pursue University Cooperative Extension Service Publications - Purdue Extension - Knowledge to Go

Wiebe, P.I (2004): “Analyzing a Farm Business”: A guide to help producers prepare, analyze and interpret farm business plans in order to make informed management decisions. Published by Manitoba Agriculture and Food Section, Manitoba University.

Unit 5: Computerized Farm Record keeping

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the unit
 - 3.1 Computerized farm record keeping
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

A concern of many financial consultants and lenders is that many farmers lack adequate records to monitor and analyze the financial health of their farm business. Lack of financial data makes it difficult to determine proper debt loads, or to develop plans for businesses with major financial problems.

A variety of methods could be used in collecting the necessary farm record information: hand kept records, simple or complex computer systems. As farm size and or debt increases, many farmers and lenders look for computer program that allow fast data entry, have internal checks for accuracy and allow summarizing the data in a variety of ways. Most begin their search by asking: Is there a simple computer program that will keep my records like the farm account books"? In this unit therefore, attempts will be made to explain the various commercial software program that can do an excellent record keeping job on the farm.

2.0 Objectives

It is expected that at the end of this unit you should be able to:

- List and explain the uses of the various commercial software programs available to keep computerized farm records.
- State the advantages and the disadvantages of each software system/program.

3.0 The body of the unit

3.1 Computerized Farm Record Keeping

In recent times, there are numerous commercial software programs that can do an excellent job of recording basic income and expense data for farmers, plus quickly summarizing and preparing a variety of financial reports, while not ruling out hand kept records, there are some basic questions to consider in selecting a computer record keeping system. The focus will be on software (computer program that performs various tasks) rather than the hardware (computer and printer).

Farm record keepers can pick their software from four groups:

1. Simple cash systems: Quicken
2. General cash accrual accounting system: Quick Books, DacEasy, peachtree

3. Farm Cash/ accrual accounting systems - PCMars, Transactions Plus (TA+) by FBS Systems, Redwing
4. Add-ons for analysis: Spreadsheets, FINPACK, AFRA by FBS.

3.1.1 Advantages and Disadvantages of each system

Simple cash systems

In a simple cash system, users are able to record all cash transactions of both the farm and family. Quicken is the only program listed due to its widespread use across the United States of America. Its popularity is due to the ease of data entry and to its low price. This single - entry system is essentially an electronic checkbook. However, it allows users to track loans, stock portfolios and other financial/ assts. The ability to easily enter data, write cheques from the computer, reconcile the cheque book with the bank statement and quickly create reports for financial and tax purposes explains its broad acceptance, there is a payroll module that can be added which is adequate for the firm with only a few employees.

Critics of Quicken point to producers with limited knowledge of accounting concepts who fail to properly classify income and expense entries that lead to flawed reports, Quicken does not have a chart of accounts with income and expense categories specific to agriculture users can correct this problem by contacting extension agents for training and obtained a sample chart of accounts to use with their farm records. Others fault Quicken for the lack of fields to track physical quantities.

Properly used, Quicken can provide useful, accurate summaries of all cash transactions, including sales and purchases of capital assets such as machinery and breeding livestock. Once the depreciation schedule is created, not by Quicken, producers have all data needed for tax reporting.

General cash/accrual accounting systems.

Three programs: Quickbooks, DacEasy, and Peachtree are listed under general cash accrual accounting systems. QuickBooks is representative of this group. QuickBooks has an excellent chart of accounts specific to agriculture. Reconciliation of computer accounts with bank statements is quite easy. Double -entry features allow either cash or accrual reports, firms with employees enjoy the ease of generating payroll checks and all related employee reporting. The user begins by entering a beginning cost

basis balance sheet. As daily receipts and expenditures are entered, the balance sheet is updated. But unless the user also records transfers of feed from inventory to livestock, monthly depreciation etc the intra-year balance sheets are not correct. For farm users a balance sheet once a year is typically all that is useful and necessary. This is accomplished by taking a year end inventory and entering the adjustments, including depreciation to make the year-end balance sheet. The beginning and ending balance sheets, plus cash receipts and expenditures give the user an accrual income statement, thus providing your basic financial statements.

Use of a program such as QuickBooks does require some knowledge of accounting. Again, these are general accounting programs and may not allow for recording physical quantities. There are some training materials and Web sites that can assist producers who wish to use such programs. Like Quicken, it allows you to separate the data into enterprise groups, such as dairy versus crops. In order to produce accurate financial statements, only information relating to the farm business should be recorded. If a computer is used to track family income and expense, you should have separate checkbooks and use Quicken to record all non farm transactions, while more expensive than Quicken, the price tag is still attractive to many small businessmen, including farmers.

Farm Cash accrual accounting systems.

The farm cash accrual accounting systems require some knowledge of accounting. Most focus only on the farm business, but some allow family or other business data to be kept in the same system. Trying to totally integrate many programs, especially the integration of feed produced, purchased, fed and sold with all cash transactions can be a daunting task. By starting with the basic program and adding others as needed, major problems should be avoided.

3.1.2 Getting beyond Just keeping records

Any of the above types of record systems can get annual summaries of cash receipts and expenses. This includes sale and purchase of capital assets, principal and interest payments and addition/borrowings. To obtain financial statement and analyze financial position requires using the data in a separate program.

This may be an additional module from the software company, or it may be a separate program. In either case, the chart of accounts used must match up with the grouping of income and expense categories in the other program.

Spread sheets are available that can be used with year end inventory data to develop balance sheets, income statements and analysis. Check the Montana state University web site for ones currently available, little cash outlay is required, but you will need to spend time to understand how to collect and enter the data to do it right. FINPAC provides another way to develop and analyze financial statements. It is also possible to use a program that is integrated with the basic software like TA+ or Red wing.

3.1.3 The Best Program (System) for Farm Business

Which program (system) is best for your farm business? No one can predict which program is best. The following may help in the decision.

1. Examine farm specific programs
If you:
 - Need complete, well documented financial statement
 - Have, or are planning on a large amount of debt
 - Have many employees
 - Have someone who has some knowledge of accounting
 - Forsee a need for more extensive records in the future.
2. Examine cash - based or generic programs, e.g Quicken if you:
 - Keep records primarily for tax purposes.
 - Prefer to use spreadsheets, FINPACK or an accountant to generate and analyze financial statements.
 - Have few employees
 - Can get needed production data elsewhere
 - Have little knowledge of computers.

4.0 Conclusion

In this unit we have learnt that computerized farm record keeping could be done with the aid of any of the following groups of software: Simple cash systems (Quicken) General cash accrual accounting systems (e.g QuickBooks, DacEasy Peachtree), Farm

cash accrual accounting systems (e.g PCMars Transactions plus (TA+), Redwing); Add-ons for analysis (e.g Spreadsheets, FINPACK, AFRA by FBS

5.0 Summary

In this unit, we have learnt that:

- All accounting software discussed in this unit allow checks to be written with the computer as the data are entered.
- All allow for reconciliation of accounts with bank statements- a major step in improving the accuracy and completeness of farm business records.
- Reports can be tailored to the needs of the tax preparer, accountant and manager using the computerized software program for record keeping.
- The major disadvantage for some is that they all require use of a computer.
- Any program can get the needed cash receipt and expense data. However, to get useful financial statements an inventory must be taken at the end of each business year. Without this, it is impossible to develop accurate balance sheets and income statements.
- Farmers who need accurate, complete financial statements and analysis should consider using some form of computer record system.
- Such statements can be prepared using a simple cash only system like Quicken when used in conjunction with spreadsheets other software programs such as FINPACK or the AFRA program by FBS or in conjunction with an accountant.

6.0 Tutor Marked Assignment

1. List and explain the uses of the various commercial software program available to keep computerized farm records.
2. State the advantages and the disadvantages of each software system/program
3. What are the basic things to consider in selecting a computer record keeping system?
4. Which of the computer software known to you will you recommend as the best for farm business?

7.0 References and other sources

Duvick, R. D (2007): Computerized Farm Record Keeping. Ohio State University Bulletin 890-01 Department of Agriculture, Environmental and Developmental Economics, the Ohio State University, Columbus.

Module Two: Bookkeeping and Accounting

Unit 1 Meaning and scope of bookkeeping

- 2 Book keeping
- 3 Meaning and scope of farm accounting
- 4 System of Farm accounting
- 5 Computerized Farm Accounting

Unit 1: Meaning and scope of bookkeeping

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The Body of the unit
 - 3.1 Meaning and scope of book keeping
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

In this unit you will learn about meaning and scope of book keeping. You will be acquainted with the distinction between book keeping and accounting as well as the various books used for book keeping.

2.0 Objectives

It is expected that, at the end of this unit, you should be able to:

- Explain the concept of book keeping
- Distinguish between book keeping and accounting.
- Discuss the various books used for book keeping.

3.0 The body of the unit

3.1 Meaning and scope of Book keeping

Book - keeping may be defined as the science of recording transactions involving money or money's worth in a regular and systematic manner in such a way that the books of accounting will show a true and fair state of the financial worth of a business readily at any point in time.

Book-keeping is the recording of transactions i.e the record making phase of accounting. The recording of transactions tend to be mechanical and repetitive, it is only a part of the field of accounting and probably the simplest part.

On the other hand, accounting includes the design of accounting systems, preparation of financial statements, audits, cost studies, development of forecast, income tax work, computer applications to accounting information as an aid to making business decisions.

The books that are used for book keeping fall naturally into the following divisions namely:

1. **Principal books:** under this sub-head we have the ledger and the cash book. These are the main books which are used for practicing the system of accounts.
2. **Subsidiary books:** This is otherwise known as books of original entry, first entry or prime entry. Many details are recorded in these books before the amounts concerned are transferred to the ledger accounts.

3. Statistical or memorandum books: In these books are found various details connected with the business operations that cannot conveniently be recorded in other books. Examples of these are the cost books and stock books of a manufacturing firm, the registers of shareholders in limited liability companies, the policy registers of an insurance company etc.

4.0 Conclusion

We have examined the meaning and scope of book keeping; the books that are used for book keeping were also discussed.

5.0 Summary

In this unit, we have learnt that:

- Book keeping is the science of recording transactions involving money or money's worth in a regular and systematic manner in such a way that the books of accounts will show a true and fair state of the financial worth of a business readily at any point in time.
- The various books that are used for book keeping can be classified into: Principal books, subsidiary books, statistical or memorandum books.

6.0 Tutor Marked Assignment

1. Define book-keeping and Accounting
2. Distinguish between book keeping and accounting.
3. Explain the three major divisions of books used in book keeping and accounting.

7.0 References and other sources

Olofinlana L.O and R.W Odewale (1999): Fundamentals of Accounting Volume 1, Second Edition, Stecom Publishers Ltd Akure, Ondo State, Nigeria pp 15-18.

Unit 2: Book keeping

- 1.0 Introduction
- 2.0 Objective
- 3.0 The body of the unit
 - 3.1 Book keeper
 - 3.2 Book keeping systems
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

In this last unit (unit one), you have found out that, book keeping is the record making phase of accounting. You have also learnt that, the various books that are used for book keeping can be classified into: principal books, subsidiary books, statistical or memorandum books. In this unit, you will learn about the book keeper as well book keeping systems.

2.0 Objectives

At the end of this unit, you will be expected to be able to:

- Explain the various systems of Book keeping.

3.0 The Body of the unit

3.1 Book keeper

A book keeper (or book keeper), also known as an accounting clerk or accounting technician, is a person who records the day-to-day financial transactions of an organization. A book keeper is usually responsible for writing the “daybooks”, The daybooks consist of purchase, sales, receipts and payments. The bookkeeper is responsible for ensuring all transactions are recorded in the correct day book, suppliers ledger, customer ledger and general ledger. The book keeper brings the books to the trial balance stage. An accountant may prepare the income statement and balance sheet using the trial balances and ledgers prepared by the bookkeeper.

3.2 Bookkeeping Systems

Two common bookkeeping systems used by businesses and other organizations are the single entry book keeping system and the double-entry bookkeeping system.

3.2.1 Single - entry system

The primary book keeping record in single-entry book keeping is the cashbook which is similar to a checking (chequing) account register but allocates the income and expenses to various income and expense accounts Separate account records are maintained for petty cash, accounts payable and receivable and other relevant transactions such as inventory and travel expenses.

The main characteristic of this system is the keeping of personal accounts only. For example, a trader who operates this system will certainly have a cashbook, but he may or may not write the cashbook up correctly, since he alone operates the books and the business. He will have access to his bank account and this is enough for him to know the state of the business. Besides the cashbook, he will also keep his customers accounts to whom goods are sold on credit just for the record. For creditors he may not bother much to record their transactions, since this is based on personal dealings.

This is one of the problems often encountered when the double entry system is not in use. Other accompanied problem of the single entry system are non keeping of the following records:

- i. Accurate Expenses Account
- ii. Total sales and purchases of Goods
- iii. Accurate figures for creditors
- iv. Acquired Assets of the business (besides the debtors)
- v. Accurate figure for capital Account at any given time.

When these records are not in place, it will be very difficult to have complete records leading to trial balance.

To prepare the profit and Loss Account and a balance sheet from single entry book-keeping, the following procedure are recommended:

- i. Build up a statement of Affairs and capital Account: This requires the value of assets and liabilities to be determined in facts and figures. This is done by taking the value of:
 - ii. Cash available at the beginning and end of a trading period including cash at bank.
 - iii. Available assets both at the beginning and close of business e.g furniture, machinery, stock in trade and the value of debtors including prepaid and bills receivable.
 - iv. Consider the value of sundry creditors, this will include personal advances to the proprietor, bank overdrafts, bills payable and outstanding expenses owing.

- v. Construct a capital account for the owner of the business. On credit (Cr) side insert the opening balance of the capital, then add any additional capital contributed either in the form of cash or of other assets.

On the Debit side enter the closing balance of capital at the end of the period. The difference between the two sides of the capital account will represent the profit or loss for the period.

Note: If the opening capital exceeds the closing capital, such excess is considered to be a loss and where the closing capital exceeds the opening capital, it is regarded as profit for the period.

Example 1

The following is an example of a single entry record, Prepare a statement of Affairs and statement of profit for the year ended.

Ascertain both the opening and closing capital.

	Jan 1 st	Dec 31 st
	₦	₦
Stock - in -trade	25,000	80,000
Machinery	15,000	40,000
Furniture	30,000	50,000
Debtors	60,000	75,000
Creditors	55,000	100,000
Insurance Prepaid	-	2,500
Electricity prepaid	4000	6,750
Cash in hand	30,000	12,000
Cash at book	50,000	37,500

By January 1st, accrued expenses was ₦3,000 and wages owing was ₦11,200. At the end of the year, 5% provision for Bad debts was to be set aside. Also at the close of the business rent owing was ₦ 8500 and bills payable was ₦11,150. The amount withdrawn by the owner in the year was ₦20,000. Within the year, he sold his used car for ₦ 40,000 and the proceeds paid into his business account.

- Find the value of sales in the period
- Find the value of purchases in the period.
- Calculate the cost of goods sold

Where the opening stock and purchases are added together, the result is the cost of goods available for sale. When closing stock is deducted, the resulting figure is cost of Goods Sold.

iv. Then find the Gross profit

To find sales and purchases figure:

SALES CONTROL ACCOUNT

Dr - Opening value of debtors

Cr - Cash received from debtors

Cr - Closing value of debtors

The difference between the debit and credit sides represents the value of sales in the period,

PURCHASES CONTROL ACCOUNT

Dr - Cash paid to Creditors

Cr - Opening value of creditors and take down below the lines.

The “difference” between the debit and credit sides represents the value of purchases in the period.

The following transactions shows the preparation of sales control Account and the purchases control Account.

	N
Opening figure of debtors for the year, Jan 1 st 200-1	40,000
Opening figure of creditors for the year, Jan 1 st 200-1	55,000
Cash received from debtors within the year	250,000
Cash paid to creditors within the year	180,000
Closing figure of creditors at the end of trading Dec 31 200-1	35,000
Closing figure of debtors at the end of trading Dec 31 200-1	60,000

Solution:

Example 1

Sales Control Account

200-1		N	200-1		N
-------	--	---	-------	--	---

Jan 1	Balance b/f	40,000	Dec 31	Cash	250,000
Dec 31	Sale (difference)	<u>270,000</u>		Balance c/d	<u>60,000</u>
200-2		<u>310,000</u>			<u>310,000</u>
Jan 1	Balance b/d	60,000			

Purchases Control Account

		₦	200-1		₦
200-1	Cash	180,000	Jan 1	Balance b/f	55,000
Dec 31	Balance c/d	<u>35,000</u>	Dec 31	Purchases differences	<u>160,000</u>
200-2		<u>215,000</u>	200-2		<u>215,000</u>
			Jan 1	Balance b/d	35,000

Statement of Affairs as at 1st January

	₦	₦		₦	₦
Capital Fund			Fixed Assets		
Cash Introduced			Machinery	15,000	
(difference)		144,000	Furniture	<u>30,000</u>	45,000
Current Liabilities:			Current Assets		
Creditors	55,000		Stock	25,000	
Accrual expenses	3,000		Debtors	60,000	
Wages owing	12,000		Electricity		
		70,000	prepaid	4,000	
			Cash in hand	30,000	
			Cash at bank	<u>50,000</u>	
					<u>169,000</u>
		<u>214,000</u>			214,000

Note:

Under the capital fund, cash introduced in January was arrived at by subtracting the current liabilities from the total of both fixed and current assets. This difference

between Assets and liabilities in the statement of Affairs is the cash introduced (capital) on 1st January.

2. Preparation of Statement of Profit

After the opening statement of Affairs has been opened and the capital ascertained the next step is to prepare the statement of profit for the year. But before this is done, the closing capital will have to be ascertained as well.

Capital at the close of business is ascertained thus:

	DR	CR
ASSETS:	₦	₦
Machinery	40,000	
Furniture	50,000	
Stock in trade	80,000	
Debtors	75,000	
Cash	12,000	
Electricity Prepaid	6,750	
Insurance	2,500	
Bank	37,500	
LIABILITIES		100,000
Creditors		8,500
Rent Owing		11,500
Bills payable		<u>183,750</u>
Closing capital (difference)		<u>303,750</u>
	<u>303,750</u>	

Before you prepare the “statement of profit”, observe the following steps.

1. Find the difference between the opening and closing capital. The difference given the apparent “profit” for the year.

2. Note the withdrawals made by the owner of the business, and any introduction of capital during the trading period. Also note the amount by which fixed assets have been depreciated. The same thing applies to Bad debts provision.

STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED 31ST DECEMBER

		₦			₦
Dec 31	Sundry Liabilities	120,000	Dec 31	Sundry Assets	303,750
	Closing capital c/d	<u>183,750</u>			<u>303,750</u>
		<u>303,750</u>			
	Opening Capital				
	Jan 1	144,000	Dec 31	Capital b/d Drawing	183,750
	Sales (car)	40,000			20,000
	Bad debts (provision)	3,750			
	Net Profit	<u>16,000</u>			
		<u>203,750</u>			<u>203,750</u>

CAPITAL ACCOUNT

		₦			₦
Dec 31	Drawings	20,000	Jan 1	Balance c/d	144,000
	Balance c/d	<u>140,000</u>		Net profit	<u>16,000</u>
		<u>160,000</u>			<u>160,000</u>

3.2.2 Double - entry system

The double entry system of bookkeeping is one whereby two (2) entries are made for every transaction. Here, we come to the long established principle of double entry book-keeping. The first golden rule is:

Every debit entry must have a corresponding credit entry and every credit entry must have a corresponding debit entry. The second golden rule is debit the account that receives and credit the account that gives.

The objectives of double entry system are to:

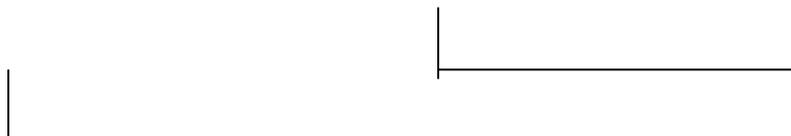
1. Provide a permanent, systematic and complete record of financial transactions.
2. Provide financial records for the value of assets and liabilities, purchases and sales, income and expenses.
3. Provide records for ascertaining profit or loss made at any given time.
4. Show the financial work of an organization at any point in time.
5. Check the arithmetical accuracy of monetary transactions recorded in the books of accounts.
6. Help in detecting fraud and other irregularities that may arise from inadequate accounting records.
7. Provide financial records for business comparative purposes within and without the activities of the organization.
8. Provide basis for planning and effective control of business operations.

The ledger is the principal book of accounts. Every other entries or transactions in all the other books of account are recorded in it. A ledger account has two sides, one for recording values received and the other for recording value given. It could be defined as a diary of events in which all happenings (financial transactions) are recorded for easy reference and to assist in the double entry system. A Specimen of ledger.

Dr				Cr			
Date	Particulars	Folio	₹ : k	Date	Particulars	Folio	₹ : K

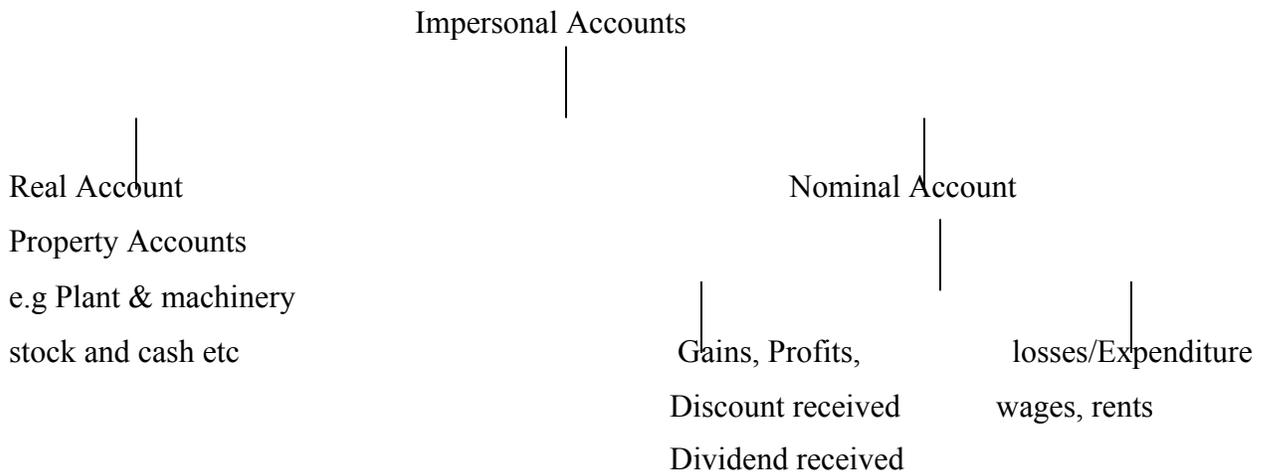
The Accounts in the ledger are s shown below

Personal Accounts



Debtors
(e.g Bank, customers)

Creditor
(e.g supplies, goods/services)



Subsidiary Books

Subsiding books are the records of transactions entered in separate books, mainly for the purpose of listing and classifying the various transactions as they occur and to avoid the risk of errors and omissions of direct entries in the ledger. Subsidiary books are also called books of original entry or “books of prime entry”

The subsidiary books required in business are:

- ii. Purchases journal/purchase day Book. This book contains the particulars of goods bought on credit. Particular of each purchase with date and names of seller are entered in it and the amount is posted individually to the credit of the account of the supplier in the ledger. The total amount of purchases for a given period is posted to the Debit of purchases Account.
- iii. Sales Journal/ sales Day Book: In the book, a daily record is made of all sales of goods on credit. Particulars of each sales with date, name of consumer and the good sold are entered in it. However, all transactions entered in this book have to be posted to the credit of the sales account at the end of a given period.
- iv. Purchases Returns Book

This contains particulars of goods returned, the date and the name of the seller / supplier. All postings being made in respect of purchases returns are taken to the Debit of the account of the seller/ supplier to whom goods are returned; and the periodic total is posted to the credit of the purchases Returns Account.

v. Sales Returns Book

This book records goods sold but later returned for one reason or the other (i.e defective, under-size, wrong supply, irregular size or colour etc). Like the purchases Returns, it records the names, date, goods returned and the reason for its return. All posting being made in respect of this returns are taken to the credit of the account of the customer who returned the goods. The respective totals are posted to the Debit of sales Returns Account periodically.

vi. The Journal Proper

The journal or Journal proper is used for the purpose of recording transactions, which because of their nature cannot be entered in any other book of prime entry. It is also used for opening and closing entries, transfer of items or corrections of errors etc.

Example 1

Enter the following transactions in double entry system in the ledger accounts of L. Oladimeji for the month of January 19 x 8

- Jan 1 Started business with ₦ 600,000, 300,000 in the bank, ₦ 200,000 in hand and ₦ 100,000 on loan from D. Twins by cheque
- 2 Bought ₦ 150,000 goods by cheque
- 3 Bought ₦ 300,000 goods on credit from P. Balogun
- 4 Sold goods on credit to J. Peter ₦ 200,000 and P. John ₦ 250,000
- 5 Bought motor van paying by cash ₦ 100,000
- 6 Paid motor expenses by cheque ₦ 10,000
- 7 Returned goods to P. Balogun ₦ 20,000
- 8 Goods returned by P. John ₦ 25,000

- 9 Paid P. Balogun by cheque ₦ 150,000
- 10 The following people paid by cheque J. Peter ₦ 170,000 and P. John ₦ 190,000
- 11 Oladimeji brought a further ₦ 100,000 into the business and deposited it in the bank
- 12 Bought Office furniture on credit from P. Tete ₦ 400,000.
- 13 Bought office stationery on credit from A Darko ₦ 20,000
- 14 Paid rent by cash ₦ 10,000
- 15 Returned part of the office furniture to P. Tete ₦ 50,000
- 16 Paid P. Tete by cheque ₦ 150,000
- 17 Sold some of the office furniture for cash ₦ N70,000
- 18 Took cash for private use ₦ 15,000
- 19 Took goods work ₦ 10,000 for private use
- 20 Bought building on credit from A Abankwa ₦ 400,000
- 21 Received rent ₦ 10,000 from part of the building sub-let cheque
- 22 Paid rent by cheque ₦ 30,000
- 25 Repaid part of D. Tale's loan by cheque ₦ 80,000
- 26 Cash sales paid direct the bank ₦ 400,000
- 31 Cash sales ₦ 150,000

Solution

L. Oladimeji's ledger accounts for the month of January 19 x 8

Capital Account

19 x 8	₦	19 x 8	₦
		Jan 1 Bank	300,000
		1 Cash	200,000
		11 Bank	100,000

Loan D. Tale's Account

19 x 8	₦	19 x 8	₦
Jan 25 Bank	80,000	Jan 1 Bank	100,000

Bank Account

		N		N	
19 x 8			19 x 8		
Jan 1	Capital	300,000	Jan 1	Purchase	150,000
1	Loan (D. Tale)	100,000	6	Motor expenses	10,000
	10 J. Peter	170,000	9	P. Balla	
150,000			16	P. Tete	150,000
10	P. John	190,000	22	Rent	30,000
11	Capital	100,000	25	Loan (D. Tale)	80,000
21	Rent Receive	10,000	26	Sales	400,000

Cash Account

		N		N	
19 x 7			19 x 8		
Jan 1	Capital	200,000	Jan 5	Motor van	100,000
17	Office Furniture	70,000	14	Rent	10,000
31	Sales	150,000	18	Drawings	15,000

Purchase Account

		N		N
19 x 8			19 x 7	
Jan 2	Bank	150,000		
3	P. Balla	300,000		

P. Balogun's Account

		N		N	
19 x 8			19 x 8		
Jan 7	Returns outwards	20,000	Jan 3	Purchases	300,000
9	Bank	150,000			

Sales Account

		N		N	
19 x 8			19 x 8		
			Jan 4	J. Peter	200,000
			4	P. John	250,000

26	Bank	400,000
31	Cash	150,000

J. Peter's Account

19 x 8	N	19 x 8	N
Jan 4 Sales	20,000	Jan 10 Bank	170,000

P. John's Account

19 x 8	N	19 x 8	N
Jan 4 Sales	250,000	Jan 8 Return inwards	25,000
		10 Bank	180,000

Motor van Account

19 x 8	N	19 x 8	N
Jan 5 Cash	100,000		

Motor Expenses Account

19 x 8	N	19 x 8	N
Jan 6 Bank	100,000		

Returns Outward Account

19 x 8	N	19 x 8	N
		Jan 7 P. Balogun	20,000

Returns Inward Account

19 x 8	N	19 x 8	N
Jan 8 P. John	25,000		

Office Furniture Account

19 x 8	₦	19 x 8	₦
Jan 12 P. Tete	400,000	Jan 15 P. Tete	50,000
		17 Cash	70,000

P. Tete's Account

19 x 8	₦	19 x 8	₦
Jan 15 Office Furniture	50,000	Jan 12 Office furniture	400,000
16 Bank	150,000		

Office Stationery Account

19 x 8	₦	19 x 8	₦
Jan 13 A. Darko	20,000		

A. Darko's Account

19 x 8	₦	19 x 8	₦
		Jan 13 Office stationery	20,000

Rent Expenses Account

19 x 8	₦	19 x 8	₦
Jan 14 Cash	10,000		
22 Bank	30,000		

Drawings Account

19 x 8	₦	19 x 8	₦
Jan 18 Cash	15,000		
19 Goods withdrawn	10,000		

Building Account

19 x 8	₦	19 x 8	₦
Jan 20 A. Abankwa	400,000		

Goods Withdrawn Account

19 x 8	N		19 x 8	N
			Jan 19 Drawings	10,000

Rent Received Account

19 x 8	N		19 x 8	N
			Jan 21 Bank	10,000

Rent Expenses Account

19 x 8	N		19 x 8	N
May 22	Bank	30,000		

Balancing off of Account

This means finding the balance on each account that make the debit side equal to the credit side. The balance is the accounting term indicating the difference between the two sides of an account. If the total of the debit entries exceeds the total of the credit entries, the account is said to have a debit balance, if the total of the credit entries exceeds the total of the debit entries, the account is said to have a credit balance. If the total of the debit entries equal the total of the credit entries, the account is said to have a nil balance and is thus self closing.

Example ii

Record the following transactions in the ledger account of D. Kollo for the month of March 19 X 7 and balance off accounts at the end of the month

	N
19 X 7	
Mar 1 Started business with:	
Cash in hand	100,000
Cash at bank	1,400,000

Loan from A.Ojo by cash	300,000
Loan from J.Ajayi by plant and Machinery worth	200,000
Mar 2 Brought goods from J .Paul	250,000
5 Sold goods Joseph and Sons	200,000
7 Sold goods for cash	100,000
11 Draw cheque for self	50,000
12 Brought goods from A. Lakolu	300,000
18 Paid cash to Bank	70,000
20 Cash Purchases	40,000
21 Paid J. Paul by cheque	200,000
24 Sold goods by cheque	600,000
26 Withdraw from current acct to saving acct	250,000
28 traveling expenses paid by cheque	100,000
29 Traveling expense Owing	20,000
30 Outstanding rent expenses	10,000
31 Paid advertising by cheque	20,000
31 Paid by cheque the balance in A Ojo's account	-----
31 Banked all the money in cash till except	10,000

Solution

D. Kollo's ledger accounts for the month of March 19 x 7

Capital Account

19 x 7	₦	19 x 7	₦
Mar 31 Bal c/d	1,500,000	Mar 1 Cash	100,000
	<u>1,500,000</u>	1 Bank	<u>1,400.00</u>
		April 1 Bal b/d	<u>1,500.00</u>
			1,500,000

Loan Account (A. Ojo)

19 x 7	₦	19 x 7	₦
Mar 31 Bank	300,000	Mar 1 Cash	300,000

Loan Account (J. Ajayi)

19 x 7	₦	19 x 7	₦
Mar 31 Bank	200,000	Mar 1 Plant & Machinery	200,000

Bank Account

19 x 7	₦	19 x 7	₦
Mar 1 Capital	1,400,000	Mar 11 Drawings	50,000
18 Cash	70,000	21 J. Paul	200,000
24 Sales	600,000	26 Deposit Account	250,000
31 Cash	380,000	28 Travelling expenses	100,000
		31 Advertising expenses	20,000
		31 J. Ajayi	200,000
		31 A. Ojo	300,000
		31 Bal cd	<u>1,330,000</u>
	<u>2,450,000</u>		<u>2,450,000</u>
April 1 Bal b/d	1,330,000		

Cash Account

19 x 7	₦	19 x 7	₦
Mar 1 Capital	100,000	Mar 18 Bank	70,000
1 Loan (A. Ojo)	300,000	20 Purchases	40,000
7 Sales	100,000	31 Bank	380,000
		31 Bal c/d	<u>10,000</u>
	<u>500,000</u>		<u>500,000</u>
Bal b/d	10,000		

Plant and Machinery Account

19 x 7	₦	19 x 7	₦
Mar 1 Loan (J.Ajayi)	200,000		

Purchase Account

19 x 7	₦	19 x 7	₦
Mar 2 J. Pal	250,000	Mar 31 Bal c/d	590,000
15 A.Lakolu	300,000		
20 Cash	40,000		
	590,000		590,000
April 1 Bal b/d	590,000		

J. Paul's Account

19 x 7	₦	19 x 7	₦
Mar 21 Bank	200,000	Mar 2 Purchases	250,000
31 Bal c/d	50,000		
	250,000		250,000

Joseph & Sons Account

19 x 7	₦	19 x 7	₦
Mar 5 Sales	200,000		

Sales Account

19 x 7	₦	19 x 7	₦
Mar 31 Bal c/d	900,000	Mar 5 Joseph & Sons	200,000
		7 Cash	100,000
		24 Bank	600,000
	900,000		900,000
		April 1 1 Bal b/d	900,000

Drawings Account

19 x 7	₦	19 x 7	₦
Mar 11 Bank	50,000		

A. Lakolu's Account

19 x 7	₤	19 x 7	₤
		Mar 15 Purchases	300,000

Deposit Account

19 x 7	₤	19 x 7	₤
Mar 26 Bank	250,000		

Travelling Expenses Outstanding Account

19 x 7	₤	19 x 7	₤
Mar 28 Bank	100,000	Mar 31 Bal c/d	120,000
29 Travelling Exp. Out	<u>20,000</u>		
	<u>120,000</u>		<u>120,000</u>
April 1 Bal b/d	120,000		

Travelling Expenses outstanding Account

19 x 7	₤	19 x 7	₤
		Mar 29 Travelling Exp	20,000

Outstanding Rent Expenses Account

19 x 7	₤	19 x 7	₤
		Mar 30 Rent Expenses	10,000

Rent Expenses Account

19 x 7	₤	19 x 7	₤
Mar 30 Outstanding rent expenses	10,000		

Advertising Expenses Account

19 x 7	₤	19 x 7	₤
Mar 31 Bank	20,000		

Note: The accounts with only one entry need not to be balanced although if the accounts are balanced there is no problem.

3.2.3 Computerized bookkeeping

Computerized bookkeeping removes many of the paper “books” that are used to record transactions and usually enforces double entry bookkeeping, computer software increases the speed at which bookkeeping can be performed.

3.2.4 Online bookkeeping

Online bookkeeping or remote bookkeeping allows source documents and data to reside in web-based application which allow remote access for bookkeepers and accountants. All entries made into the online software are recorded and stored in a remote location. The online software can be accessed from any location in the world and permit the bookkeeper or data entry person to work out of an office. The paperwork can either be delivered to the bookkeeper, or a company can scan its business documents and upload them to a secure location or into an online bookkeeping application on a regular basis. This allows the bookkeeper to work remotely with these documents to update the books. Users of the technology include:

- Mobile employees scanning and sending in their receipts and bills while on the road to get reimbursed more quickly.
- Organizations with multiple officers centralizing their accounting department and having the documents scanned and sent to this location.

4.0 Conclusion

In this unit, we have learnt about bookkeeping and the various methods of bookkeeping.

5.0 Summary

In this unit, you have learnt that:

- Bookkeeping is the act of keeping accounts in a regular and systematic manner. i.e the record making phase of accounting.

- The books that are used for bookkeeping fall naturally into the following divisions; principal books, subsidiary books and memorandum books.
- The major methods of bookkeeping are single entry and double entry. However, bookkeeping can be done on-line or computerized.
- The golden rules for double entry system are:
 - i. Every debit entry must have a corresponding credit entry and every credit entry must have a corresponding debit entry.
 - ii. Debit the account that receives and credit the account that gives.

6.0 Tutor Marked Assignment

1. Who is a bookkeeper?
2. State and explain the major methods of bookkeeping
3. State and explain the golden rules of bookkeeping
4. Enter the following transactions in double entry form in the books of Jokoje & Sons and balance off the accounts at the end of month.

19 x 9

- Dec 1 Started business by cheques ₦ 900,000 and ₦ 100,000 by cash
- 2 Bought goods on credit from Tade & sons ₦ 400,000
- 3 Paid for carriage on purchases by Cash ₦ 15,000
- 5 Sold goods by cheque ₦ 700,00
- 7 Bought motor vehicle on credit from Ioto Ltd ₦ 700,000
- 9 Sold goods in credit to Boluwatife & Daughters ₦ 600,000
- 11 Received cheque from Boluwatife ₦ 250,000
- 13 Returned goods to Taiwo & Sons ₦ 25,000
- 15 Bought goods on credit from Pelu & Sons ₦ 400,000
- 17 Paid Ioto Ltd ₦ 500,000 by cheque
- 19 Paid carriage on sales by cash ₦ 18,000
- 21 Draw cheque for ₦ 50,000 for business use
- 23 Withdraw cash for personal use ₦ 30,000
- 25 Paid for advertising in cash ₦ 9,000
- 26 Paid salaries and wages by cheque ₦ 75,000

- 27 Paid the balance on Tade & sons account by cheque
- 28 Banked cash in the cash till with the exception of ₦,000
- 31 withdraw ₦ 70,000 from current account to deposit account

7.0 References and other sources

Olofinlana, L.O and R.W Odewale (1999); Fundamentals of Accounting volume 1, second Edition, Stecom Publishers, Akure, Ondo State, Nigeria. Pp 16-30.

Igben, R.O (2004): Financial Accounting Made Simple. Volume 1 First edition.
EL - TODA Ventures Ltd, Lagos, Lagos State, Nigeria PP 221-226.

Williams, J.R; S.F Haka; M.S Bettner, J.V. Carcello (2008): Financial and Managerial Accounting, McGraw-hill Irwin Publishers P. 26.

Pinson, L and J. Jinnett (1993): Keeping the Books, Second Edition. Upstart Publishing Company, Inc. PP 10.

Unit 4: System of Farm Accounting

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The Body of the unit
 - 3.1 Systems of farm Accounting
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

Making observations on the business and deriving information is one of the most important roles of farm management. Farm Accounting provides information to control money flow in the business. It provides information on financial “worthness”, performance and monetary checking. In this unit, you will learn about the systems of farm accounting.

2.0 Objectives

At the end of this unit, you will be expected to be able to explain the various systems of farm accounting.

3.0 The body of the unit

3.1 System of farm Accounting

Accounts are financial records of what the farmer spends and receives.

Potentially, a complete system of farm accounting should give the farmer much information. e.g.

- i. The current cash position and estimates of the future cash positions.
- ii. The past profitability of different crops.
- iii. The amounts owed to the farmer by debtors, and by him to creditors.
- iv. The value of the business assets (plant, stock, land and building etc) and.
- v. The profitability of the whole farm and estimates of likely future profits.

Four variants of the accounting system are discussed in this unit and these are:

3.1.1 Farm Income Statement or Cash Analysis Account

The Farm Income Account is a statement of all cash transactions that took place with regard to the farm for the year that has just ended. In the farm Account book, Sales and receipts are recorded on the left hand side, while purchases and expenses are recorded on the right hand side. Under each of the two sides of the Account, there are three columns: Date, Details and Total.

Table 5: Farm Income Statement for the Year ended Dec 31, 2007

Sales and Receipts ₦			Purchase and Expenses ₦		
Date	Details	Total	Date	Details	Total
		received			paid
Jan 1	Opening balance being cash in bank	1,000,000		Implements	100,000
				Wages	500,000
				Feeds	1,200,000
				Seeds	80,000
				Fertilizer	50,000
				Rent	20,000
July	Yams	400,000			
Sept	Maize	250,000			
Nov	Cassava	180,000			
Nov	Eggs	500,000			
Nov	Broiler	600,000			
Dec	Others	450,000			
		3,380,000			2,000,000
				Closing Balace	
				being cash in bank	1,380,000
		3,380,000			3,380,000

Year 2008: Opening balance being cash in bank = ₦1,380,000

3.1.2 Farm Trading Account or Profit and loss Account

In order for a farmer to know whether he had made a profit or loss during the year, he needs to present his records in form of trading account in details.

The profit and loss Account provides information about the performance of the business in a given period of time. This is normally in one year. Profit is a return to the management. So, a manager will be interested in making judgments based on the profit earned.

In the farm Trading Account, it is customary to put “purchase and Expenses on the left hand side and “sales and Receipts” on the right. The closing valuation is also on the right and opening valuation on the left

Table 6: Farm Trading Account as at December 31, 2007.

Purchases and Expenses	₦	Sales and Receipts	₦
Opening valuation		Sheep	250,000
Sheep	250,000	Goat	388,000
Goat	410,000	Yams	200,000

Seed	40,000	Cocoa	450,000
Fertilizer	120,000	Maize	198,000
Cocoa Trees	850,000	Melon	104,000
Sprays	35,000	Produce consumed	158,000
Maize	88,000	Miscellaneous	
Yam	54,000	Receipts	112,000
Melon	66,000	Total Receipts	<u>1,860,000</u>
Total opening valuation	<u>1,913,000</u>	Closing Valuation	
Expenses		Cocoa Trees	1,000,000
		Sheep	300,000
		Goat	480,000
		Seed	32,000
Implements	45,000	Maize	140,000
Insecticides	25,000	Yam	33,000
Wages	101,000	Melon	77,000
Feeding Stuffs	44,000	Implements	<u>88,000</u>
Rent	50,000	Total closing	
Seeds and fertilizer	210,000	Valuation	2,100,000
Depreciation	500,000		
Veterinary Services	72,000		
Total Expenses	<u>2,960,000</u>		
Farm Profit	1,000,000		
	<u>3,960,000</u>		<u>3,960,000</u>

3.1.3 Balance Sheet

The balance sheet otherwise known as the networth statement or financial statement which applies to a point in time and represents a stock concept. It is like taking a snapshot of the business at a particular point in time. The networth statement shows the value of the assets that would remain if the business were to be liquidated and all outside claims paid.

By definition, networth statement is equal to total assets minus total liabilities, that is:

The Networth statement sometimes gives information on the solvency of the business and is used as basis for credit because it shows the ability of the business to meet short-run financial demands. If the total assets exceed the total liabilities, the business is solvent. The greater the networth, the better the solvency position of the business.

Table 7: A Networth Statement for Chivita Farm as at Dec 31st 2006

Assets	(₦)	Liabilities	(₦)
<u>Current</u>		<u>Current</u>	
Cash	600,000	Account Payable now	400,000

Crops	400,00		
<u>Working Capital</u>		<u>Intermediate</u>	
Suppliers	250,000	Account Payable	600,000
Tools	50,000	Within three years	
<u>Fixed Capital</u>		<u>Long Term</u>	
Land	900,000	Account Payable in	500,000
Building	300,000	20 years	
Fencing	200,000	Total liability	1,500,000
		Net Worth	1,200,000
Total Assets	2,700,000	Total Liability	
		+ Networth	2,700,000

3.1.4 Farm Assets Valuation

Valuation entails obtaining a realistic measure of the current value of the assets of the farm business. The first thing to do in assets valuation is the listing of all the resources available in physical terms then, place value on the assets. The various methods of valuation include valuation at cost, market price, net selling price, reproductive value etc.

1. Valuation at cost:- This entails entering in the inventory, the actual amount invested on the asset when it was originally acquired. A major disadvantage of this method is that after the business has been in operation for sometimes, the original cost is no more of much value since the conditions might have changed.

2. Valuation at Market Price- The market price of an assets at the time under consideration can be taken as its value e.g land

3. Valuation at Net Selling price some costs such as cost of advertisement and transportation might be incurred when selling an asset. Whatever price can be obtained in the market for the assets (i.e market price (Pm) less the cost of selling (Cs) is the net selling price (Pns), Notationally,

$$Pns = Pm - Cs$$

4. Valuation by Reproductive Value

An asset can be valued at what it would cost to produce it at present prices and under present methods of production. This method is more useful for long-term assets and has little or no application for short - lived assets

4.0 Conclusion

We have learnt in this unit the various forms of farm accounting.

5.0 Summary

You have learnt in this unit that:

- Accounts are financial records of what the farmer spends and receives.
- Farm accounting provides information to control money flow in the business. It provides information on financial worthiness, performance and monetary checking.
- The four variants of farm accounting system are: Farm Income Statement or cash Analysis Account, Farm Trading or profit and Loss Account, Farm Balance sheet or Networth statement and Farm Assets valuation.
- Farm assets could be valued using these methods: valuation at cost, valuation at market price, valuation at net selling price and valuation by reproductive value.

6.0 Tutor Marked Assignment

1. What are the four variants of the farm accounting system?
2. What are the four major ways by which farm assets can be valued.
3. With the aid of an equation, explain the concept of balance sheet.

7.0 References and other sources

Adesimi, A.A (1988): Farm Managements Analysis with Perspectives through the Development process. Pp 43-52.

Olukosi, J.O and P.O Erhabor (1988) Introduction to farm management Economics: Principles and Application AGITAB Publisher Ltd, Zaria Pp 48 - 61.

Unit 5: Computerized Farm Accounting

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the Unit
 - 3.1 Farm Funds: Complete Farm Accounting
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and Other Sources

1.0 Introduction

This is the computer age and the world is becoming a global village. In this unit, we shall examine complete farm Accounting using a software known as Farm funds.

2.0 Objectives

It is expected that at the end of this unit, you should be able to.

- * Explain the features of the farm funds.

3.0 The Body of the unit

3.1 Farm Funds

Farm Funds is the only farm accounting software that fully integrates with field records (Farm Trac), herd management records (Farm Stock), and mapping (Farm site). Do you know your cost per acre? What is your cost per kilogramme of livestock? Farm funds offers easy enterprising per field, livestock groups, machine, or structure while still maintaining the records you need for tax purposes. Eliminate the stress by keeping your receipts in the shoebox and let farm funds create tax reports you need.

The features of the farm funds are

- Double entry accounting for both cash and accrual books
- Integrates with Farm Trac to keep accounting records at the same time as keeping field histories, herd notations and chemical records.
- Up - to - date inventory tracking
- Profitability of each field and herd of animals is automatically calculated.
- Supports detailed cost records for equipment
- Full payroll system that calculates Federal and most state withholdings
- No monthly closings required and year-end is simple
- Records animal weights and feedings to calculate feed conversion and cost per kilogramme gained for each livestock group.
- Tax schedule area allows you to create reports to make tax preparation easy.
- Generate market value balance sheets.
- Includes budgeted cashflows
- Keep family living costs separate from farm costs.

- Full check - recording system. Includes interactive check register for easy editing and printing of transactions.
- Predefined accounts and financial statement formats are available that can easily be modified to reduce set up time.
- Depreciation amounts for equipment, structures, land improvements and livestock can be entered.
- REQUIRES Farm Trac, Microsoft window 98 or higher, 133 MHZ Processor, 64MB Memory, 20MB Hard drive space.
- Enhancements in farm Funds version 2009 includes: Expanded Budget comparison Report and the cashflow statement.

4.0 Conclusion

We have learnt in this unit that farm accounting can be computerized and that complete farm accounting could be carried out using computer software such as Farm Funds.

4.0 Summary

In this unit, you have learnt that:

- Farm Funds is the only farm accounting software that fully integrates with field records, herd management and mapping.
- For efficient performance of the farm fund, it requires Farm Trac, Microsoft window 98 or higher, 133MHZ processor, 64MB Memory, 20MB Hard Drive space.
- The features of the Farm Fund among other include double entry accounting for both cash and accrual books.

6.0 Tutor Marked Assignments

1. How can complete farm accounting be accomplished electronically?
2. State the major features of the farm funds.
3. What are the enhancements in the 2009 version of the Farm Funds?

7.0 References and other sources

Farm Funds: Complete Farm Accounting. Farm funds - Farm Accounting from Farm works software, martens farm [http://www.123 farm workers. Com/funds.htm](http://www.123farmworkers.Com/funds.htm).

Farm Works Software (version 14):

Major New features and Enhancements. Farm works software 2009 (Version 14) - Integrated farm and Agribusiness Management. [http://www.123 farmworks. Com/farmworks 2009. htm](http://www.123farmworks.Com/farmworks2009.htm).

MODULE THREE: TRIAL BALANCE AND FINAL ACCOUNTS.

- Unit 1: Meaning and Scope of trial balance.
- Unit 2: Limitations and common errors of trial balance
- Unit 3: Final Accounts
- Unit 4: Adjustments in the final Accounts I.
- Unit 5: Adjustments in the final Accounts II

Unit 1 Meaning and scope of Trial Balance

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the unit
 - 3.1 Definition of Trial balance
 - 3.2 Constructing a Trial Balance
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and Other Sources

1.0 Introduction

If the double - entry principle have been completely and correctly applied, it is obvious that the total of all debit entries will be equal to the total of all credit entries. By extension, the total of the debit balances should be equal to the total of the credit balances. The list drawn up showing the balances extracted from all accounts is known as a trial balance. This unit examines the definition of trial balance, its functions and how to construct it.

2.0 Objectives

By the end of this unit, you should be able to:

- Define and explain trial balance
- State the functions/ purposes of trial balance
- Construct a trial balance

3.0 The body of the unit

3.1 Definition of trial Balance

The Trial balance can be defined as the list of accounts balances at a given point in time drawn up to test the arithmetical accuracy of accounting entries. A trial balance can also be defined as a check of arithmetical accuracy of the bookkeeping to test the double whether it has been completed in the ledger or not. A trial balance is a list of balances both credit and debit extracted from the ledgers and cash book of a company as at a particular date. It is not an account but a statement showing the list of accounting balances. The total of all the debit balances in the accounts must equal the sum of all the credit balances.

In accounting, the trial balance is a worksheet listing the balance at a certain date of each ledger account in the columns, namely debit and credit. Under the double - entry system, in any transaction the total of any debit must equal the total of any credit. So in a trial balance the total of the debit side should always be equal to the total of the credit side.

If the journal entries are error - free and were posted properly to the general ledger, the total of all the debit balances should equal the total of all the credit balances.

If the debit do not equal the credits then an error has occurred somewhere in the process. The total of the accounts on the debit and credit side is referred to as the trial balance

3.2 Constructing a trial balance

A trial balance can be constructed in two ways:

1. By means of Totals

Since a trial balance is a test of arithmetical accuracy, it will be wrong to adopt this means of totals in extracting an accurate trial balance. For this reason, this method is rarely used. But it could be used where there are less transaction to cope with in the books.

2. By means of Balances

This is the most popular method used in taking out the balances of accounts in order to extract an accurate trial balance. This method has some advantages amongst which is the outright revelation of compensating errors, where the total of the debit column of the trial balance has to agree with the total of those subsidiary books together with the closing cash balance but omitting the cash balance in the opening entries.

The procedure for extracting the trial balance is:

- i. Close the ledger accounts
- ii. Write the correct heading: Trial Balance as at (or on) specify the period.
- iii. All the debit balances in the ledger accounts would appear under the debit column of the trial balance.
- iv. All the credit balances in the ledger accounts would appear under the credit column of the trial balance.
- v. The additions of both the credit and debit columns must be equal.

Examples

To calculate the trial balance, first determine the balance of each general ledger account as shown in the example below:

Lawyer's Ledger accounts for the month of September, 19 x 8

Cash		Accounts Receivable	
Sep 1 750,000	Sep 15 100,000	Sep 17 70,000	Sep 25 42,500
17 40,000	28 50,000		
25 42,500			
Bal 682,500		Bal 27,500	

Parts Inventory	
Sep 8 250,000	Sep 18, 27,500
<hr/>	
Bal 222,500	

Accounts Payable	
Sep 28 5,000	Sep 8 250,000
<hr/>	
	Bal 200,000

Capital	
	Sep 1 750,000
<hr/>	
	Bal 750,000

Revenue	
	Sep 17 110,000
<hr/>	
	Bal 110,000

Expenses	
Sep 15 100,000	
Sep 18 27,500	
<hr/>	
Bal 127,500	

Once the account balances are known, the trial balance can be calculated as shown below

Trial Balance as at 30th September, 19 x 8

Account Title	Debits	₦ : K Credit
Cash	682,500	
Accounts Receivable	27,500	
Parts Inventory	222,500	
Accounts Payable		200,000
Capital		750,000
Revenue		110,000
Expenses	127,500	
	<u>1,060,000</u>	<u>1,060,000</u>

In this example, the debits and credits balance. This result does not guarantee that there are no errors.

The trial balance serves three purposes:-

- v. It serves as a check on the “arithmetical accuracy” of the entries, as already mentioned, and.

- vi. It is the basis upon which the Trading and Profit and Loss Account and Balance sheet are drawn upon.
- vii. It ensures that all the credit entries in the books have a corresponding debit entries.

4.0 Conclusion

This unit has enabled you to understand what a trial balance is and how it is being constructed. In addition, the purposes of the trial balance was highlighted.

5.0 Summary

This unit has acquainted you with:

- What the definition of trial balance is
- The purposes of a trial balance.
- The Construction of a trial balance from a ledger.

6.0 Tutor Marked Assignment

1. State and explain the concept of Trial balance.
2. State three uses/ purposes of the trial balance.
3. State the procedure for extracting the trial balance.

7.0 References and other sources

Igben, R.O (2004): Financial Accounting Made Simple. Volume 1 EL-TODA ventures Limited, Lagos, Nigeria Pp 17-25.

Trial balance - Wikipedia, the free encyclopedia. [http://en.wikipedia.org/wiki/Trial balance](http://en.wikipedia.org/wiki/Trial_balance)

Trial balance. <http://www.netmba.com/accounting/fin/process/trial/>

Williams, J.R, S.F Haka, M.S Bettner, J.V Carcello (2008): Financial and Managerial Accounting, McGraw-Hill Irwin. Publisher P. 26

Unit 2: Limitation and common errors of the trial balance

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the unit
 - 3.1 Limitations of the trial balance
 - 3.2 Common errors of the trial balance
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

Agreement of the trial balance does not mean that there are no errors in the entries as there are some errors which will not prevent the trial balance from agreement.

2.0 Objectives

It is expected that at the end of this unit you would be able to:

- State and explain the limitations of the trial balance.
- State and explain the common errors that can affect the trial balance.

3.0 The body of the unit

3.1 Limitations of the trial balance

The limitations of the trial balance lies in the type of errors that though they exist in the accounts yet do not affect balancing of the trial balance. These are discussed in turns:

1. Error of omission: This is where a transaction is not recorded at any time at all in the books. That is, when a transaction is completely omitted from the accounting records. The trial balance will not be affected and the error remains unrevealed.
2. Error of commission: This is when the entries are made at the correct amount, and the appropriate side (debit or credit) but one or more entries are made to the wrong account of the correct type. For example, if fuel costs are incorrectly debited to the postage account (both expenses accounts). This will not affect the totals.
3. Error of original entry: This is when both sides of a transaction include the wrong amount. For example, if a purchase, invoice for N21,000 is entered as N12,000, this will result in an incorrect debit entry (to purchases) and an incorrect credit entry (to the relevant creditor account) both for N9,000 less, so the total of both columns will be N9,000 less, and will thus balance
4. Error of principle: This is when the entries are made to the correct amount, and the appropriate side (debit or credit), as with an error of commission, but the wrong type of account is used, for example, if fuel costs (an expense account) are debited to stock (an asset account). This will not affect the totals.
5. Compensating error: This is where a combination of errors cancel each other out or where one account has been under or over debited or credited with the certain amount,

and another account over or under debited or credited with the same account. This will not prevent the trial balance agreement. So, the error remains undetected. For example, where purchases account balance is increased by ₦2,000 and sales account balance is also increased by ₦2000, the two accounts would cancel out the error.

6. Error of Reversal: This is when entries are made to the correct amount, but with debits instead of credits, and vice versa, for example, if a cash sale for ₦1,000 is debited to the sales account, and credited to the cash account, such an error will not affect the totals.

7. Error of complete Reversal of Entry: This error occurs where the double entry for a transaction is reversed resulting in a situation whereby the account that ought to be debited is credited and the account that ought to be credited is debited. For example, an amount paid to a supplier may be wrongly debited to the cash book and credited to his personal account.

8. Error of Transposition: The meaning of this error can be deduced from the meaning of the word “transpose” as to cause two or more things to change places. Error of transposition, therefore, is a mistake involving the changing of the places of the numerals making up an amount. For example, ₦3,101 may be wrongly posted as ₦3,01, ₦4,233 may be wrongly posted as ₦4,332 and so on.

When the error of transposition occurs at the time source document is written or at the time the source document is posted to the subsidiary book, it is effectively an error of original entry. This is the reason why error of original entry and error of transposition are sometimes regarded as one and the same,

3.2 Errors affecting the trial balance

If the trial balance is not in balance, then an error has been made somewhere in the accounting process. The following is listing of common errors that would result in an unbalanced trial balance; this listing can be used to assist in isolating the cause of the imbalance.

1. Summation error for the debits and credits of the trial balance.
2. Error transferring the ledger account balances to the trial balance columns.
 - i. Error in numeric value
 - ii. Error in transferring a debit or credit to the proper column

- iii. Omission of an account
3. Error in the calculation of a ledger account balance.
4. Error in posting a journal entry to the ledger.
 - i. Error in numeric value
 - ii. Error in posting a debit or credit to the proper column
5. Error in the Journal entry
 - i. Error in a numeric value
 - ii. Omission of part of a compound journal entry.

4.0 Conclusion

In this unit, we have learnt about the limitations of the trial balance as well as the common errors of the trial balance.

5.0 Summary

You have learnt in this unit that:

- Agreement of the trial balance does not mean that there are no errors in the entries.
- The limitations of the trial balance lies in the types of errors that though they exist in the accounts yet do not affect balancing of the trial balance.
- Errors that do not affect the trial balance include among others: Error of omission, error of commission, error of original entry, error of principle, compensating error, error of reversal and error of complete reversal of entry.
- Errors that affect the trial balance include among others: Summation error, error in the calculation of a ledger account balance.

6.0 Tutor Marked Assignments

1. State and explain five limitations of the trial balance.
2. State and explain common errors that affects the trial balance.

7.0 References and other sources

Igen, R.O (2004): Financial Accounting Made simple. Volume 1, EL-TODA ventures Limited Lagos, Nigeria.

Trial balance. <http://www.netmba.com/accounting/fin/process/trial/>

Trial balance - Wikipedia, the free encyclopedia. [http://en.wikipedia.org/wiki/trial _ balance.](http://en.wikipedia.org/wiki/trial_balance)

Unit 3: Final Accounts

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The Body of the unit
 - 3.1 Manufacturing account in a manufacturing organization
 - 3.2 Trading account
 - 3.3 Profit and loss Account
 - 3.4 Profit and Loss Appropriation account in partnership and limited liability companies
 - 3.5 Balance sheet
 - 3.6 Notes to the accounts
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

In this unit you will learn about final accounts. You will be acquainted with the various accounts that make up the final account.

2.0 Objectives

It is expected that, at the end of this unit, you should be able to:

- Explain the concept of final accounts.
- Prepare the various accounts that makes up the final accounts

3.0 The body of the unit

The term final account is applied to the following in its broad form.

- i. Manufacturing account is a manufacturing organization.
- ii. Trading account
- iii. Profit and loss account
- iv. Profit and loss Appropriation account (in partnership and limited liability companies)
- v. Balance sheet and
- vi. Notes to the account (in limited liability companies).

3.1 Manufacturing Account

The main purpose of preparing the manufacturing account is to determine the cost of production whether it is more profitable to continue in production of the goods for sale or it is more economical to purchase them wholesale from outside suppliers. If it is found that the cost of production of the good is lower than outside purchase, then it is worthwhile producing but if the cost is higher than outside procurement, then it is uneconomical to produce within.

3.2 Trading Account

The trading Account helps in determining the trading position of a business. The aim of the Trading Account is to ascertain the gross profit or gross loss for a certain period. The gross profit or gross loss is arrived at after charging the goods and materials and other items of direct cost.

The gross profit figure can be used to compare the performance of one business with another and to help in taking certain progressive business decisions with the pricing of goods for sale.

3.2.1 Trading Account Layout:

Debit: on the debit side are placed the stock at the start i.e. at the commencement of the period to which the account relates.

All purchases (cash and credit) out of which all returns (returns outwards) are to be lessened, carriage inwards i.e the charge made for conveyance of goods by land. Less closing stock of goods available at the end of a trading period.

Credit: on the credit side are placed the sales, less all sales returns (Returns inwards), closing stock of good -i.e the value of the goods unsold at the end of the period.

The summary of the layout is as follows:

		₹			₹
Opening Stock		xxx	Sales		xxx
+ Purchases	xxx				
Less Returns					
Outwards	xx	xxx	Less Returns Inward		xx
+ Carriage Inwards	<u> </u>	*			
Goods available for sale		xxx			
- Closing stock					
Cost of goods sold		xxx			
Gross Profit c/d		<u>xx</u>			
		<u>xxx</u>			<u>xxx</u>

Note:

The difference between cost of goods sold and the Net sales (if there is Returns Inwards) represents the Gross profit made and this is transferred down to the credit of profit and loss Account.

3.3 Profit and Loss Account

The profit and Loss Account is an account into which all gains and losses are collected. Where the gains made in the trading period exceed the losses or expenses, the excess is the Net profit. However, where the losses are greater than the gains, the difference is the Net Loss.

The Profit and loss account is used to ascertain the net profit or net loss for the same period of trading after charging administrative selling and distribution expenses and some other financial charges (like discount allowed, bank charges, interest on loan) etc against the gross profit or included with the gross loss to increase the non-profitability of the business during the financial year.

3.3.1 Profit and Loss Account Layout:

The profit and Loss Account, contains on the credit side, the Gross profit shown by the Trading Account and on the Debit side all the expenses or losses incurred in carrying out the business.

XYZ

Profit and loss Account for the year ended 31st December,.....

	₹		₹
Gross Loss B/d	xx	Gross Profit b/d	xx
Wages and Salaries	xx	Discount Received	xx
Rent and Rates	xx	Interest on Deposit Account	xx
Insurance Premium	xx	Recoveries or part	
Advertising	xx	Recoveries of Bad Debts	xx
Carriage Outwards	xx	Selling Bonuses	xx
Discount Allowed	xx	Profit on sale of Asset	xx
Stationery and Postages	xx	Income from Investment	xx
Bad Debts	xx	Commission Received	xx
Provision for bad debts	xx	Rent Received	xx
Depreciation	xx	Net Loss	xx
Lighting and Heating	xx		
Telephone Expenses	xx		
Loan Interest	xx		
Bank charges	xx		
General Expenses	xx		
Repairs and Renewals	xx		
Accounting & Professional charges	xx		
Travelling Expense	xx		
Salesmen Commission	xx		
Distribution Expenses	xx		
Entertainment Expenses	xx		

Legal charges	xx		
Net Profit c/d	xx		xx
Net Loss b/d	xx	Net Profit b/d	xx

Note:

Gross profit and Gross Loss, Net Profit and Net Loss figures occur at the same time, it only shows the side they would appear if any of them should occur.

Moreover, expenses incurred in carrying on the affairs of a business concern will vary in accordance with the surrounding circumstances. This is also applicable to gains made. The above list of expenses and income are by no means exhaustive.

3.4 Profit and Loss Appropriation Account

The objective of the Profit and loss appropriation account is to show all dispositions, divisions and appropriations of the net profit and loss.

The Profit and Loss Appropriation Account is the third segment of the conventional Trading, Profit and Loss Account. The Net profit of the Profit and Loss Account is usually brought down to this account as an opening balance. Added to it is the amount charged for interest on drawings.

On the Debit side are interest on capital so charged on each partner, the amount paid as commission or salaries to partners. The difference between the debit and credit sides represents the balance of profits or loss to be shared between or among the partners.

3.5 The Balance Sheet

The balance sheet is a statement of the assets at a particular moment in time and the liabilities and proprietor's capital, Besides being the statement of asset and liabilities, it also shows whether a business is solvent or insolent i.e. the ability of the business and its inability to meet its financial obligations as at when due. The difference between the assets and liabilities represents the capital of the business.

The balance sheet shows the summary form of the financial state of the concern as disclosed in the books. It is to be noted that the balance sheet is not an account but a

statement of the assets and liabilities of a person or business on a given date arranged in the form of the book-keeping equation which runs thus:

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

This is known as the accounting equation.

XYZ					
Balance sheet as at 31 st December,					
	₹	₹		₹	₹
Capital:			Fixed Assets:		
Capital	xx		Land and Buildings	xx	
Add: Net Profit	xx		Less: Provision for Depreciation	<u>xx</u>	xx
	xx		Plant & Machinery	xx	
Less: Drawings	<u>xx</u>		Less Provision for Dep	xx	xx
		xx	Motor vehicles	xx	
			Less: Provision for Dep	<u>xx</u>	xx
			Furniture and fittings	xx	
			Less: Provision for Depreciation	xx	<u>xx</u>
			Loose Tools	xx	
			Less: Provision for Deprecation	<u>xx</u>	xx
Long Term Liability:					
Loan		xx			
			Current Assets:		
			Stock		xx
Current Liabilities			Debtors	xx	
			Less:		
Bank overdraft	xx		Prov. For Bad debts	xx	xx
Trade creditors	xx		Bills Receivable		xx
Bills payable	xx		Bank Deposit		xx
Accrued Expense	xx		Cash		xx
Income Received in			Prepayments		xx
Advance	<u>xx</u>				
			Accrued Income		xx
	<u>xx</u>				<u>xx</u>
	<u>xx</u>				<u>xx</u>

3.5 Notes to the Accounts

The notes to the accounts give a brief explanatory information to the users of accounting statements as to how and why some items have been treated in the books and states its compliance with the legal requirements of disclosure of some relevant and significant transactions.

Example

The following information is in respect of the business affairs of Olaoluwa and Sons Enterprises for the year ended 31st March 19 x 4

- i. Stock on 31st March, 19 x 4 was ₦38,500
- ii. Provide depreciation on plant and machinery which has a life span of 12 years and a residual value of ₦4,000.
- iii. Provide depreciation on motor vehicle at the rate of 20% on the net book value.
- iv. The organization sub-let the building on 30th June, 19 x 3 and the rent received covered 30th June 19 x 3 to 1st October, 19 x 4.
- v. Loan from S. Johnson was received on 1st January, 19 x 3 at 15 percent per annum and only ₦4,500 have been paid as interest throughout the period.
- vi. 20% P.a deposit on NN Bank Limited was made on 31st May, 19 x 3.
- vii. Maintain provision for doubtful debts on debtors as 5 percent and adjust the provision for discounts allowable on debtors to 1 percent.
- viii. Create a provision for discount received on creditors at ½ percent.
- ix. Provide for interest on capital account as 1 percent.
- x. The following expenses are under-paid: Telephone ₦4,000 and salaries and wages ₦11,500.
- xi. Salaries and wages paid include ₦3,500 for direct wages.
- xii. Distribution and selling expenses was over-paid by ₦1,500.

Question

1. Prepare the trial balance from the extract of the books during the same period.
2. Make the necessary adjustments and prepare:
 - i. The Trading and Profit and loss Account for the year ended 31st March, 19x 4 and
 - ii. The Balance sheet as at 31st March, 19 x 4

(Note: show you answer to the nearest Naira)

Solution

1. Trial balance: The following is the trial balance extracted from his books during the same period.

	DR	CR
	₦	₦
Purchases and Sales	500,000	750,000
Returns	10,500	15,000

Debtors and Creditors	60,500	75,100
Carriage on purchases	1,500	
Carriage on sales	2,000	
Bad debts written off	5,000	
Provision for bad debts - 1 st April 19 x 3		2,500
Provision for discount on debtors - 1 st April 19 x 3		1,000
Salaries and Wages	20,000	
Lighting	4,500	
Telephone Expenses	5,000	
Stationery	7,000	
Bank Charges	1,000	
Loan from S. Johnson		40,000
Loan interest owing - 1 st April, 19 x 2		1,500
Travelling Expenses	1,600	
Loan Interest	4,500	
20% P.a Deposit in NN Bank Ltd	60,000	
Interest on Bank Deposit		7,000
Salesmen Commission	2,700	
Distribution and selling Expenses	25,000	
Buildings	80,000	
Plant and Machinery at cost	100,000	
Provision for Depreciation on plant & Machinery		32,000
Motor vehicles at cost	150,000	
Provision for depreciation on motor vehicles		60,000
Rent Received from building sub-let		12,000
Stock on hand - 1 st April, 19 x 3	35,000	
Bank and Cash	3,000	
Drawings	5,800	
Capital		87,000
Discounts	7,000	8,500
	<u>1,091,600</u>	<u>1,091,600</u>

2i Olaoluwa and Sons Enterprises Trading Account for the year ended 31st march, 19 x 4.

	₦	₦		₦
Opening Stock		35,000	Sales (Gross)	750,000
Add:			Les Returns Inwards	<u>10,500</u>
Purchases	500,000		Net Sales	739,500
Carriage on purchase	<u>1,500</u>			
	501,500			
Less:				
Returns Outwards	<u>15,000</u>			
		486,500		
Goods Available for Sale		521,500		
Less: Closing Stock		<u>38,500</u>		

Cost of Goods sold	483,000	
Gross Profit c/d	<u>256,500</u>	
	<u>739,500</u>	<u>739,500</u>

Olaoluwa and Sons Enterprises profit and Loss Account for the year ended
31st March 19 x 4

	₦	₦		₦	₦
Discount Allowed		7,000	Gross Profit b/d		253,000
Carriage on sales		2,000	Discount Received		8,500
Bad Debts		5,000	Interest on Bank Deposit	7,000	
Provision for bad debts		525	Add: Outstanding	<u>3,000</u>	10,000
Lighting		4,500	Rent Received	12,000	
Telephone Expenses	5,000		Less: Received in Add	<u>4,800</u>	7,200
Add: under paid	<u>4,000</u>	9,000	Decrease in provision for		
Stationery		7,000	discount in debtors		425
Bank charges		1,000	Provision for discount		
Interest on Loan			received on creditors		375
	4,500				
Add: Interest owing	<u>3,000</u>				
	<u>7,500</u>				
Less: Payment in arrears	<u>1,500</u>				
		6,000			
Salesmen commission		2,700			
Travelling Expenses		1,600			
Salaries and Wages	20,000				
Add Owing	<u>11,500</u>				
	<u>31,500</u>				
Less: Direct Wages	<u>3,500</u>				
		28,000			
Distribution and selling					
expenses	25,000				
Less: Prepaid	<u>1,500</u>				
		23,500			
Dep: Motor vehicle	18,000				
Plant & Machinery	<u>8,000</u>				
		26,000			
Provision for interest in					
capital		870			
Net Profit c/d		154,806			
		<u>279,501</u>			<u>279,501</u>

Olaoluwa and Sons Enterprises Balance Sheet as at 31st March, 19 x 4

	₦	₦	Fixed Assets:	₦	₦
Capital		87,000	Building		80,000
Add: Net Profit		<u>154,806</u>	Plant & Machinery	100,000	
		241,806	Less: Provision for Dep	<u>40,000</u>	
Less drawings		<u>5,800</u>			60,000
		236,006			
Long term liability loan:			Motor vehicles	150,000	
S. Johnson	40,000		Less: Prov. For Dep	<u>78,000</u>	
<u>Current Liabilities:</u>					<u>72,000</u>
Creditors	75,000				212,000
Less Provision for					
Discount Received	<u>376</u>		<u>Current Assets:</u>		
		74,724	Stock	38,500	
Accruals:			Debtors	56,900	
Telephone	4,000		Prepaid Distribution &	1,500	
Provision for interest on	870		Selling expenses		
capital			Interest Receivable (W.C)	3,000	
Interest on loan	3,000		Bank Deposit	60,000	
Salaries and Wages	11,500		Bank and Cash	3,000	
Rent Received in Advance	4,800				
		<u>24,170</u>			<u>162,900</u>
		<u>374,900</u>			<u>374,900</u>

Workings:

(W.a)

Provision for Bad Debts Account

19 x 4	₦	19 x 3	₦
Mar 31 Bal c/d	3,025	April 1 Bal b/d	2,500
		19 x 4	
		Mar 31 Profit and Loss	<u>525</u>
	<u>3,025</u>		<u>3,025</u>

Provision for Discount Allowed on Debtors Account

19 x 4	₦	19 x 3	₦
Mar 31 Profit and Loss	425	April Bal b/d	1,000
31 Bal c/d	<u>575</u>		

1,000

1,000

Calculation of provision of discount on debtors:

= (N60,500 - N3,025) x 1% = N575 approximately

Calculation of Total Debtors:	N	:	N
Debtors as per Trial Balance			60,500
Less:			
Provision for Bad Debts	3,025		
Provision for Discount Allowed on Debtors	<u>575</u>		
			<u>3,600</u>
			<u>56,900</u>

(w.b) Interest on loan from Johnson

Date Received: 1st January, 19 x 3

Amount of loan: N40,000

Rate: 15% per annum

Amount paid: N4,500

1st January, 19 x 3 to 31st March, 19 x 3 = 3 months

1st April 19 x 3 to 31st March 19 x 4 = 12 months

15% x N40,000 x 3/12 = N1,500

15% x N40,000 = N6,000

Out of the N4,500 that was paid N1,500 is in respect of the last financial period and N3,000 is in respect of this financial period out of the N6,000 that is actually due, and as such N3000 is still outstanding.

(w.c) 20% p.a Deposit in NN Bank Ltd (Note vi):

Date of deposit: 31st May 19 x 3

Total months used in the bank = 10 months

i.e June 19 x 3 to March 19 x 4

N

Interest supposed to be received = $20\% \times 60,000 \times 10/12$	10,000
Less: Amount Received	<u>7,000</u>
Interest Receivable	<u>3,000</u>

(w.d) Rent from building sub-let

Date building was sub-let = 30th June, 19 x 3
 Total months covered = 15 months receipts
 The number of months that is utilized = 9 months
 The amount that is meant for the financial year =
 $\text{N}12,000 \times 9/15 = \text{N}7,200$
 Rent Received in advance = $\text{N}12,000 - \text{N}7,200$
 = $\text{N}4,800$

(w.e) Depreciation on plant and machinery	N
Plant and Machinery at cost	= 100,000
Less Residual value (Note ii)	<u>4,000</u>
	<u>96,000</u>
Depreciation on motor vehicles	
= $\text{N}150,000 - \text{N}60,000 \times 20\%$	= <u>18,000</u>

(w.f) Provision for discount received on creditors (Note viii) $\text{N}75,000 \times \frac{1}{2}\%$
 = $\text{N}376$

4.0 Conclusion

We have learnt in this unit that final accounts is made up of different accounts such as: Manufacturing Account, Trading Account, Profit and Loss Account, Profit and Loss Appropriation Account, Balance sheet and Notes to the accounts.

5.0 Summary

You have learnt in this unit that:

- The main purpose of preparing the manufacturing account is to determine the cost of production.

- The aim of the trading account is to ascertain the gross profit or gross loss for a certain period.
- The profit and loss account is used to ascertain the net profit or net loss for the same period of trading after charging administrative, selling and distribution expenses and some other financial charges,
- The objective of the profit and loss appropriation account is to show all dispositions, divisions and appropriations of the net profit and loss.
- The Balance sheet shows whether a business is solvent or insolvent i.e the ability of the business and its inability to meet its financial obligations as at when due.

6.0 Tutor Marked Assignment

1. State and explain the different components that makes up the final account.
2. Mr Olaleleye the account clerk of Manuwa Enterprises extracted the following list of balances from the records on 31st December, 19 x 3 Capital ₦75,000, Sales ₦126,270, Purchases ₦295,000, Carriage inwards ₦2,000 Carriage outwards ₦3,000 Discount Allowed ₦6,500, Discount Received ₦8,100, Creditors ₦80,500, Debtors ₦70,100, Rent ₦6,000, Rates ₦6,000, Bad debts ₦3,500, Provision for bad debts ₦2,800 as at January 1 19 x 3, Provision for discount allowed on debtors ₦500 as at January 1 19 x 3. Provision for discount received on creditors ₦700 as at January 1, 19 x 3, stock in trade as at January 1 19 x 3 ₦40,500, Accountancy charges ₦11,500, Travelling expenses ₦15,100, Entertainment expenses ₦5,600, Salaries and Wages ₦12,500, Salesmen commission ₦4,100, commission and selling bonuses received ₦7,700 cash in hand ₦5,100, cash at bank ₦9,500, Plant and Machinery at cost ₦40,000 (the plant has a net book value of ₦22,000 on 1st January 19 x 3), furniture and fittings at cost ₦30,000, the provision for depreciation on furniture and fittings on 1st January 19 x 3 was ₦8,130, proceeds from sale of furniture and fittings ₦3,500, Building ₦45,000, Drawings ₦6,700, Returns Inwards ₦7,000, Returns outwards ₦5,000. You are Required to:
 - i. Extract a trial balance from the above list of balances as at 31st December, 19 x 3
 - ii. Prepare a Trading Profit and loss Account for the year ended 31st December, 19 x 3 and a Balance sheet as at that date after taking the under listed adjustments into consideration

- i. Stock in trade 31st December 19 x 3 ₦52,700
- ii. Goods withdrawn without record for personal uses ₦2,500
- iii. ₦1,600 included in the entertainment expenses is meant for advertising.
- iv. Adjust provision for discount allowed on debtors at 1%.
- v. Write off provisions for discount received on creditors because it is no longer required.
- vi. Plant and machinery to be depreciated at 15% on cost.
- vii. Furniture and fittings are to be depreciated at 10% on the net book value.
- viii. On 1st January, 19 x 0, some furniture and fittings were purchased for ₦5,000 and they were disposed off on 31st December 19 x 3 and ₦3,500 was realized. The proceed of this transaction was only recorded in the cash book and disposal of furniture and fittings account.
- ix. Additional furniture and fittings purchases on 30th June, 19 x 3 for ₦9,000 has not yet been recorded in the assets account.
- x. ₦9,000 introduced as additional capital during the year has not been recorded in the capital account.
- xi. Commission and selling bonuses received in advance amounted to ₦500.
(Note: show your answer to the nearest Naira).

8.0 References and other sources

Olofinlana, L.O and R.W Odewale (1999): Fundamentals of Accounting, volume 1. Stecom Publishers, Akure, Ondo State.

Unit 4: Adjustments in the final Account 1

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the unit
 - 3.1 Depreciation
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

In this unit, attempts will be made to explain Adjustments in the final account 1 particularly in relation to Depreciation.

2.0 Objectives

It is hoped that, at the end of this unit, you will be able to:

- Define and explain depreciation
- Methods of charging depreciation
- State and explain the accounting entry for depreciation.

3.0 The Body

Adjustments in accounting is the process whereby necessary amendments in form of additions, deductions and provisions are made to income and expenditure in the financial statements to reflect the true and fair state of the final accounts of a business during the financial period under consideration.

In this unit, emphasis will be placed on depreciation as a form of adjustment.

3.1 Depreciation is the wear and tear in the value of assets.

Depreciation is the loss in value of a capital asset over time due to age, obsolescence and wear and tear.

Depreciation is the loss in value of fixed or capital assets employed in the business like plant and machinery motor vehicle, buildings, and other equipment owing to the normal and inevitable process of making use of the assets over a number of years.

The objectives of charging depreciation among others include:

- i. To spread the cost of the asset reasonably over the life span of the asset.
- ii. To get aside out of profit the amount of the original investment used up during the year.
- iii. To allocate cost to the service of the assets which were consumed during the financial or trading period.

3.1.1 Terminologies used in Depreciation Account

- i. Original value: This is the cost price of an asset when it is newly acquired.

- ii. Residual value: This is either called “scrap”, “Break-off” or salvage “value”. It is the estimated amount to be realized by sale of asset when it is retired from use. It is the market or book value of a fixed asset as at the end of its span or service.
- iii. Life span of assets: This is the length of time an asset is estimated to be in use before it is finally scrapped or written off.
- iv. Obsolescence: This means the process of becoming outdated due to new inventions.

3.1.2 Methods of calculating/charging depreciation

There are various methods of calculating depreciation and they are as listed below.

- i. The straight - line method
- ii. The reducing balance method
- iii. Revaluation method
- iv. Sinking fund method
- v. Depletion unit method
- vi. Production unit method

The two main methods which are commonly in use are the straight line method and the reducing balance method and they are discussed into details below.

The straight line method

Annual depreciation (AD) of an asset is computed by dividing the original value (OV) minus the salvage value (SV) by the expected years of life of the assets (EL)

$$AD = \frac{OV - SV}{EL}$$

The straight line method is the simplest and the most widely used method of calculating depreciation.

The advantages of this method include among others that:

- i. It is simple to operate as it does not require much effort in computing depreciation charge.
- ii. It eliminates the cost of the asset from the books where there is no residual value at the end of the useful life.
- iii. It gives room for better comparative costs.

The disadvantages of this method include among other that:

- i. The early years are over charged as the same amount appears yearly whereas the machine may be losing its efficiency in the latter years.
- ii. It does not take the effective and efficient usage of the asset into account in the latter years.

Example

Calculate the depreciation charge per annum on a machine costing N150,000 having a lifespan of five years with a break -off value of N5,000 at the end of its useful life.

Solution

$$\begin{aligned}\text{Formula AD} &= \frac{\text{OV} - \text{SV}}{\text{EL}} \\ &= \frac{\text{N150,000} - \text{N5,000}}{5} \\ &= \text{N29,000 per year}\end{aligned}$$

The Reducing Balance Method

This is otherwise known as the ‘diminishing balance method’ or “Reducing Installment method” This is a method of providing for depreciation by means of periodic charges as a constant proportion of the net book value of the asset after deducting the amount previously provided. The declining balance method assumes a fixed rate of depreciation every year. The salvage value is not subtracted from the initial cost but the fixed rate is applied to the uncovered balance till the salvage value is reached. Since the value of the asset is greater at the beginning when the rate is applied the amount of depreciation is also greater at the beginning and less at the end. Hence, this method is useful for assets which lose value fast at the beginning of its use.

The advantages of the declining balance method among others is that:

- i. All items including addition, are grouped together and depreciated at the same rate.
- ii. The charge for depreciation decreases accordingly as the asset is getting older and losing its efficiency.

The disadvantages of the declining balance method among others is that:

- i. An asset cannot be completely written off by this method.

- ii. There is difficulty in calculating depreciation especially at the time of disposal.
- iii. If the life span of the asset is short, the burden thrown on earlier years may be excessive.

Example

A machine cost N100,00 and the rate of depreciation for it is 20% per annum using reducing balance method. You are required to calculate the depreciation charge on the machine for 4 years.

Solution

a	b	c	d	e
Year	Cost and Balance brought forward ₦	Rate (%)	Depreciation per annum $d = (b \times c)$ ₦	Net Book value $e = (b - d)$ ₦
1	100,000	20	20,000	80,000
2.	80,000	20	16,800	64,000
3	64,000	20	12,800	51,200
4	51,200	20	10,240	40,960

3.1.3 Accounting Entry for Depreciation

The accounting entry for depreciation for straight line and reducing balance methods are basically the same, it is only the computation of depreciation expenses that there is difference.

There are two methods of recording depreciation in the books:

- i. The old method
- ii. The modern Method

The Old Method

This is where the double entry for each year’s depreciation charge is recorded in the asset account.

The accounting procedures of the old method are as stated below:

1. When asset is purchased:
Debit - Asset Account
Credit - Bank /Cash (or creditor if it is purchased on credit) Account.

2. When depreciation is charged at the end of the period:
Debit - Depreciation account
Credit - Asset Account
3. Transfer the depreciation expense to profit and loss account at the end of the accounting period
Debit - Profit and Loss Account
Credit - Depreciation Account
4. The depreciation charges will be deducted from the book value of the asset in the balance sheet at the end of the period.

The Modern Method

In this case, depreciation is not recorded in the asset account instead it is shown accumulating in a separate account.

The accounting procedures for the modern method is as stated below:

1. When an asset is newly purchased:
Debit - Asset Account
Credit - Cash/Bank (or creditor if it is bought on credit) Account.
2. When depreciation is charged at the end of the period:
Debit - profit and Loss Account
Credit - Provision for Depreciation Account
3. In the Balance sheet, the accumulated depreciation is deducted from the cost price of the asset.

Example (Involving the use of the old method)

Kokumo and Sons Enterprises Purchased the following motor vehicles on the stated dates:

January 1, 19 x 4 - 2 motor vehicles at ₦50,000 each by cheque.

June 30, 19 x 5 - 3 motor vehicles at ₦40,000 each by cheque

December 31, 19 x 5 - 1 Motor vehicle at ₦60,000 from Laco Ltd on credit.

The rate of depreciation is assumed to be 20% per annum. You are to record the above transactions in the motor vehicles account with its depreciation on both straight-

line and reducing balance methods for 19 x 4, 19 x 5 and 19 x 6. Show also how it will appear in the profit and Loss Account and the Balance Sheet for the same periods.

Solution

Straight-Line method

Depreciation Account

19 x 4	₦	19 x 4	₦
Dec 31 motor vehicles	20,000	Dec 31 Profit and Loss	20,000
19 x 5		19 x 5	32,000
Dec 31 Motor Vehicles	32,000	Dec 31 Profit and Loss	
19 x 6		19 x 6	
Dec 31 Motor Vehicles	56,000	Dec 31 Profit and Loss	56,000

Motor Vehicles Account

19 x 4	₦	19 x 4	₦
Jan 1 Bank	100,000	Dec 31 Depreciation	20,000
		31 Bal c/d	80,000
	<u>100,000</u>		<u>100,000</u>
19 x 5		19 x 5	
Jan 1 Bal b/d	80,000	Dec 31 Depreciation	32,000
Bank	120,000		
Dec 31 Loca Ltd	60,000	31 Bal c/d	228,000
	<u>260,000</u>		<u>260,000</u>
19 x 6		19 x 6	
Jan 1 Bal b/d	228,000	Dec 31 Depreciation	56,000
		31 Bal c/d	172,000
	<u>228,000</u>		<u>228,000</u>
19 x7			
Jan 1 Bal b/d	172,00		

Kokumo and Sons Enterprise Profit and Loss Account (Extracts)

19 x 4	₦	19 x 4	₦
--------	---	--------	---

Dec 31 Depreciation 19 x 5	20,000	
Dec 31 Depreciation 19 x 6	32,000	
Dec 31 Depreciation	56,000	

Kokumo and Sons Enterprises Balance Sheet as at 31st December,(Extracts)

	19 x 4	N	N
Motor Vehicles		100,000	
Less Depreciation		<u>20,000</u>	
			<u>80,000</u>
19 x 5			
Motor Vehicles		260,000	
Less Depreciation		<u>32,000</u>	
			<u>228,000</u>
19 x 6			
Motor vehicles		228,000	
Less Depreciation		<u>56,000</u>	
			<u>172,000</u>

Workings: All dates end on 31st December

19 x 4		N
Jan 1 Motor Vehicles N100,000 x 20%	=	20,000
19 x 5		
Jan 1 Motor vehicles N100,000 x 20%	=	20,000
June 30 Motor vehicles 120,000 x 20% x 6/12	=	12,000
Dec 31 Motor vehicles, No Depreciation	=	-
		<u>32,000</u>

19 x 6		
Jan 1 Motor vehicles N100,000 x 20%	=	20,000
1 Motor vehicles N120,000 x 20%	=	24,000
1 Motor vehicles N60,000 x 20%	=	12,000
		<u>56,000</u>

Reducing Balance method

Motor vehicles Account

19 x 4	₦	19 x 4	₦
Jan 1 Bank	100,000	Dec 31 Depreciation	20,000
		31 Bal c/d	80,000
	<u>100,000</u>		<u>100,000</u>
19 x 5		19 x 5	
Jan 1 Bal b/d	80,000	Dec 31 Depreciation	28,000
Jan 30 Bank	120,000		
Dec 31 Loca Ltd	60,000	31 Bal c/d	232,000
	<u>260,000</u>		<u>260,000</u>
19 x 6		19 x 6	
Jan 1 Bal b/d	232,000	Dec 31 Depreciation	46,400
		31 Bal c/d	185,600
	<u>232,000</u>		<u>232,000</u>
19 x 7			
Jan 1 Bal b/d	185,600		

Depreciation Account

19 x 4	₦	19 x 4	₦
Dec 31 Motor vehicles	20,000	Dec 31 Profit and Loss	20,000
19 x 5		19 x 5	
Dec 31 Motor vehicles	28,000	Dec 31 Profit and Loss	28,000
19 x 6		19 x 6	
Dec 31 Motor vehicles	46,400	Dec 31 Profit and Loss	46,400

Kokumo and Sons Enterprises
Profit and Loss Account (Extracts)

	N		N
19 x 4		19 x 4	
Dec 31 Depreciation	20,000		
19 x 5			
Dec 31 Depreciation	28,000		
19 x 6		19 x 6	
Dec 31 Depreciation	46,400	Dec 31 Profit and Loss	46,400

Kokumo and Sons Enterprises
Balance Sheet as at 31st December,..... (Extract)

	N		N
		19 x 4	
		Motor Vehicles	100,000
		Less Depreciation	<u>20,000</u>
			<u>80,000</u>
		19 x 5	
		Motor vehicles	260,000
		Less depreciation	<u>28,000</u>
			<u>232,000</u>
		19 x 6	
		Motor vehicles	228,000
		Less Depreciation	<u>46,400</u>
			<u>185,600</u>

Workings: All dates and on 31st December

19 x 4	N		N
Jan 1 Motor vehicles N100,000 x 20%			20,000
19 x 5			
Jan 1 Motor vehicles N80,000 x 20%		16,000	
June 30 Motor Vehicle N120,000 x 20% x 6/12		12,000	
Dec 31 Motor vehicles - No Depreciation		-	
			28,000
19 x 6			
Jan 1 Motor vehicles 232,000 x 20%			46,400

Example (Involving the new method)

The financial year end of Rainbow and friends Enterprises is 31st December annually.

The following machines were purchased:

1st January, 19 x 4, 2 machines at N80,000 by cash

31st August, 19 x 4, 1 machine at N60,000 by cheque

1st December, 19 x 4, 3 machines at N40,000 each on credit from John Bros

31st December, 19 x 4 1 machine at N30,000 by cheque.

31st March, 19 x 5, 2 machines at N50,000 each by cheque.

Depreciation is charged at 25%

You are required to show:

- i. The machinery account
- ii. The provision for depreciation account
- iii. The provision and loss accounts extracts, and
- iv. The balance sheet extracts for the following years: 19 x 4, 19 x 5 and 19 x 6

Solution

Machinery Account

19 x 4		₦	19 x 4		₦
Jan 1	Cash	80,000	Dec 31	Bal c/d	290,000
Aug 31	Bank	60,000			
Dec 1	John Bros	120,000			
Dec 31	Bank	<u>30,000</u>			
		290,000			<u>290,000</u>
19 x 5			19x 5		
Jan 1	Bal b/d	290,000	Dec 31	Bal c/d	390,000
Mar 31	Bank	100,000			
		<u>390,000</u>			<u>390,000</u>
19 x 6			19 x 6		
Jan 1	Bal b/d	390,000	Dec	Bal c/d	390,000
		<u>390,000</u>			<u>390,000</u>
19 x 7					
Jan 1	Bal b/d	390,000			

Provision for Depreciation Account

19 x 4		₦	19 x 4		₦
Dec 31	Bal c/d	27,500	Dec 31	Profit and Loss	27,500
19 x 5			19 x 5		
Dec 31	Bal c/d	118,750	Jan 1	Bal b/d	27,500
		<u>118,750</u>	Dec 31	Profit and Loss	91,250
		216,250			<u>118,750</u>
19 x 6			19 x 6		
Dec 31	Bal c/d	216,250	Jan 1	Bal b/d	118,750
		<u>216,250</u>	Dec 31	Profit and Loss	97,500
		216,250			<u>216,250</u>
19 x 7			19 x 7		
Jan 1	Bal b/d	216,250	Jan 1	Bal b/d	216,250

Rainbow and friends Enterprises

Profit and Loss Account for the year ended 31st December,.....

Extracts

	₦	₦
19 x 4 Provision for Depreciation	27,500	
19 x 5 Provision for depreciation	<u>91,250</u>	
19 x 6 Provision for Depreciation	<u>97,500</u>	

Rainbow and Friends Enterprises

Balance Sheet as at 31st December,

Extracts

	₤	₤
19 x 4 Machinery	290,000	
Less Provision for Depreciation	<u>27,500</u>	
		<u>262,500</u>
<u>19 x 5</u> Machinery	390,000	
Less provision for Depreciation	<u>118,750</u>	
		<u>271,250</u>
<u>19 x 6</u> Machinery	390,000	
Less Provision for Depreciation	<u>216,250</u>	
		<u>173,750</u>

Workings on depreciation charge per year:

All dates end on 31st December.

19 x 4	₤	₤
Jan 1 ₤ 80,000 x 25%	=	20,000
Aug 31 ₤ 60,000 x 25% x 4/12	=	5,000
Dec 1 ₤ 120,000 x 25% x 1/12	=	2,500
Dec 31 ₤ 30,000 - No depreciation	=	<u>NIL</u>
		<u>27,500</u>
19 x 5		
Jan 1 ₤290,000 x 25%	=	₤ 72,500
Mar 31 ₤100,000 x 25% x 9/12	=	18,750
		<u>91,250</u>
19 x 5		
Jan 1 ₤390,000 x 25%	=	<u>97,500</u>

Reducing Balance Method
Provision for Depreciation Account

	N		N
19 x 4		19 x 4	
Dec 31 Bal c/d	27,500	Dec 31 Profit and Loss	27,500
19 x 5		19 x 5	
Dec 31 Bal c/d	111,875	Jan 1 Bal b/d	27,500
		Dec 31 Profit and Loss	84,375
	<u>111,875</u>		<u>111,875</u>
19 x 6		19 x 6	
Dec 31 Bal c/d	181,506	Jan 1 Bal b/d	111,875
		Dec 31 Profit and Loss	69,531
	<u>181,406</u>		<u>181,406</u>

Rainbow and Friends Enterprises
Profit and Loss Account for the year ended 31st December,

Extracts

	N		N
9 x 4	27,500		
19 x 5	<u>84,375</u>		
19 x 6	<u>69,531</u>		

Rainbow and Friends Enterprises
Balance Sheet as at 31st December, (Extracts)

	N		N
19 x 4			
Machinery	290,000		
Less provision for Depreciation	<u>27,500</u>		
			<u>262,000</u>
19 x 5			
Machinery	390,000		
Less Provision for depreciation	<u>111,000</u>		
			<u>278,125</u>
19 x 6			
Machinery	228,000		

		Less provision for Depreciation	<u>181,406</u>
Workings on depreciation charge per year: All dates end on 31 st December.			<u>208,594</u>
19 x 5	N	N	
Jan 1 N262,500 x 25%	=	65,625	
Mar 31 N100,000 x 25% x 9/12	=	<u>18,750</u>	
			<u>84,375</u>
19 x 6			
Jan 1 278,125 x 25%	=	69,531	

Note:

- i. The machinery account under both straight - line and reducing balance methods are the same. There is no change in the recording of transactions.
- ii. The depreciation for the first year 19 x 4 under both methods are the same.

4.0 Conclusion

In this unit, we have so far gotten acquainted with adjustment in the final accounts especially as regards to depreciation. The various methods of calculating depreciation were highlighted. The accounting entry procedure for depreciation of old and modern methods were equally mentioned and discussed. Worked examples involving the use of old and modern methods of treating depreciation in accounting balance were demonstrated.

5.0 Summary

Having gone through this unit, you should have learnt that:

- Adjustments in accounting is the process whereby necessary amendments in form of additions, deductions and provisions are made to income and expenditure in the financial statements to reflect the true and fair state of the final accounts of a business during the financial period under considerations.
- Depreciation is the wear and tear in the value of assets.
- There are various methods of charging depreciation over the life span of an asset such as: The straight line method, the reducing balance method, revaluation method, sinking fund method, depletion unit method and production unit method.

- The accounting entry for depreciation for straight line and reducing balance methods are basically the same, it is only in computation of depreciation expenses that there is difference.
- There are two methods of recording depreciation in the books:- The old method and the modern method.

6.0 Tutor Marked Assignment

1. What is depreciation
2. Calculate the depreciation charge per annum on a machine costing ₦300,000 having a life span of five years with a salvage value of ₦10,000 at the end of its useful life.
3. A machine costs ₦200,000 and the rate of depreciation for it is 20% per annum. Using reducing balance method, you are required to calculate the depreciation charge on the machine for 4 years.
4. Debo and Sons Enterprises maintains a system of double entry in which depreciation is recorded in the assets account. The depreciation policy for motor vehicles is reducing balance method based on monthly ownership at the rate of 20% per annum. The financial year ends on 31st December annually. The following motor vehicles were purchased on the stated dates.

January 1, 2004 2 motor vehicles at ₦500,000 each

June 30, 2004 1 motor vehicle at ₦400,000

March 31, 2006 1 motor vehicle at ₦600,000

On 1st October, 2006, one of the motor vehicles bought for ₦500,000 was disposed of for ₦350,000. On 30th April, 2007, motor vehicle bought for 400,000 on June 30, 2004 was disposed of for ₦200,000 and another was purchased for ₦300,000.

You are required to show:

- iv. Motor vehicles account incorporating the disposal account.
- v. Depreciation account

- vi. Profit and loss account (Extracts) and
- vii. Balance Sheet (Extracts) for 2004, 2005, 2006, and 2007.

7.0 References and other Sources

Ekongocha, F.O and K. Jegasothy (1990): Managing a small-scale plantation: A Teaching Manual. CTA IRETA Publications, Apia, Western Samoa

Igben R.O (2004): Financial Accounting made simple, volume 1. El - TODA ventures Limited, Lagos, Lagos State, Nigeria.

Olofinlana, L.O and R.W Odewale (1999): Fundamentals of Accounting, Volume 2, Stecom Publishers, Akure, Ondo State.

Unit 5: Adjustments in the final Accounts II

- 1.0 Introduction
- 2.0 Objectives
- 3.0 The body of the unit
 - 3.1 Bad Debts
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor Marked Assignment
- 7.0 References and other sources

1.0 Introduction

We discussed depreciation in the previous unit, our emphasis in this unit is shifting to treatment of bad debts in the final accounts and the accompanying adjustments.

2.0 Objectives

It is expected that at the end of this unit, you will be able to:

- Define bad debt
- Know the accounting entry for bad debts
- Provisions for bad debt
- Know the various circumstances leading to occurrence of bad debts.

3.0 The body of the Unit

3.1 Bad debts

Bad debts could be defined as debts which are irrecoverable from debtors and therefore regarded as losses to the company and hence are debited to the profit and loss account as an expense of the period.

Any of the following circumstances could lead to occurrence of bad debts:

- i. The death of the debtor
- ii. Court ruling adjudging the debtor bankrupt
- iii. The debtor is at large and could no longer be found.

3.1.1 Accounting Entry for Bad Debts

1. When the debt is irrecoverable from the debtor:
Debit - Bad debt account
Credit - The debtor's account
2. Transfer the debts in the bad debts account to profit and loss account at the end of the year:
Debit: Profit and Loss Account
Credit: Bad debt account.

3.1.2 Provision for Bad Debts

Provision for bad debit is an item of estimated expense for debts that are doubtful or uncertain to be fully recovered from the hands of the debtors.

This can be treated under two methods:

- i. When no separate provision for bad debt account is maintained: In this case the provision for bad debts is recorded in the bad debts account.
- ii. Where separate provision for bad debts account is maintained: This is a situation where there are independent accounts for both bad debts and provision for bad debts.

Accounting entry where there is no separate provision for bad debt

The accounting entry is as follows where no separate provision for bad debts is maintained:

- a. Provision for bad debts is recorded in the bad debt account.
- b. The provision for doubtful debt entry at start in bad debt account:
Debit - Bad Debt account, this would appear as balance carried down
Credit - Bad Debt account this would appear as balance brought down.
- c. Subsequent provision for doubtful debt in the succeeding years:
Debit - Bad debt account, this would be recorded as balance carried down.
Credit - Bad debt account, this would be recorded as balance brought down.
- d. Transfer the difference in bad debt account to profit and loss account as an expense:
Debit - Profit and Loss account
Credit - Bad debt account
- e. In the balance sheet, the provision for bad debt would be deducted from the aggregate debtors.

Where separate provision for doubtful debt is maintained

For instance where separate provision for doubtful debt is maintained, the accounting entry runs thus:

- a. With provision for doubtful debt at start,
Debit - Profit and Loss Account
Credit - Provision for Bad debt account

- b. With increase in the provision:
Debit - Profit and Loss account with the increase only
Credit - provision for Bad debt account with the increase only
- c. With decrease in the provision:
Debit - Provision for bad debt account with the decrease.
Credit - Profit and loss Account with the decrease
- d. In the balance sheet, the provision for bad debt would be deducted from the aggregate debtors.

3.1.2 Recovered bad Debts

This is a debt which had been written off as irrecoverable from the debtor and later on the debtor showed up to pay up his debt or part of it. When bad debts written off are recovered, the book keeping entries is as follows:

- a. First reinstate the debt by making the following entries:
Debit - Debtor's account
Credit - Bad debt recovered account
- b. When cash or cheque is received from the debtor in settlement of the account or part thereof:
Debit - Bank or cash account
Credit - Debtor's account
- c. Transfer the amount paid on bad debts recovered account to profit and loss account.
Debit - Bad debt recovered account.
Credit - Profit and loss Account

3.1.3 Worked Examples

1. Mr O. Arobieke owed Ajike Enterprises the sum of ₦200,000 as at February 1, 2005, he was declared bankrupt on 28th February 2005 and his property were distributed among his creditors of which Ajike Enterprises is one. All the creditor received 75k over on the Naira on 31st October, 2005. Record the above transactions in the relevant ledger accounts of Ajike Enterprises at the end of the year 31st December, 2005.

O. Arobieke's Account

2005 Jan 1 Bal c/d <hr style="border: 0.5px solid black;"/> 200,000 <hr style="border: 0.5px solid black;"/> 200,000	N	2005 Oct 31 Bank/Cash Dec 31 Bad debts <hr style="border: 0.5px solid black;"/> 150,000 50,000 <hr style="border: 0.5px solid black;"/> 200,000	N
---	---	--	---

Bad Debt Account

2005 Dec 31 O. Arobreke <hr style="border: 0.5px solid black;"/> 50,000	N	2005 Profit and Loss <hr style="border: 0.5px solid black;"/> 50,000	N
---	---	--	---

Profit and Loss Account

2005 Dec 31 Bad Debts <hr style="border: 0.5px solid black;"/> 50,000	N	2005 <hr style="border: 0.5px solid black;"/> N	N
---	---	--	---

2. The Accounting year of Ajewole and Sons Enterprises runs from January to December every year. During the three years ended 31st December 2004, 2005 and 2006, the following debts were found to be irrecoverable and were subsequently written off to bad debt account on the stated dates below: N

28 th February, 2004	T. Taiwo	10,000
31 st May, 2004	K. Kehinde	25,000
30 th November, 2004	I. Idowu	15,000
31 st January 2005	A. Alaba	30,000
31 st July, 2005	O. Ojo	5,000
31 st August 2006	Y. Yemisi	8,000
1 st December, 2006	K. Kokumo	9,000

On 31st December, 2004, 2005 and 2006, the outstanding figure for total debtors from sales ledger account was N600,000, N800,000 and N500,000 respectively. It is the company's policy to make 5% provision for doubtful debts at the end of the years.

You are required to prepare for the years 2004 to 2006.

- viii. Bad debt account with provision inclusive
- ix. Profit and loss account (extracts)

x. Balance sheet (extracts)

Solution

Ajewole and Sons Enterprises Profit and Loss Account for the year ended 31st December;

.....

Extracts

	N	N
2004		
Dec 31 Bad Debt	80,000	
2005		
Dec 31 Bad debt	75,000	
2006		
Dec 31 Bad debt	42,000	

Bad Debt Account

	N		N
2004		2004	
Feb 28 T. Taiwo	10,000	Dec 31 Profit and Loss	80,000
May 1 K. Kehinde	25,000		
Nov. 30 I. Idowu	15,000		
Dec 31 Provision for Doubtful Debt c/d	30,000		
	<u>80,000</u>		<u>80,000</u>
2005		2005	
Jan 31 A. Alaba	30,000	Jan 1 Provision for doubtful debts b/d	30,000
July 31 O. Ojo	5,000		
Dec 31 Provision for doubtful debt c/d	40,000	Dec 31 Profit and loss	45,000
	<u>75,000</u>		<u>75,000</u>
2006		2006	
Aug 31 Y. Yemisi	8000	Jan 1 provision for doubtful Debt b/d	40,000
Dec 1 K. Kokumo	9000		
Dec 31 Provision for doubtful Debt c/d	25,000	Dec 31 Profit and Loss	2,000
	<u>42,000</u>		<u>42,000</u>
		2007	
		Jan 1 Provision for Doubtful Debt b/d	25,000

Ajewole and Sons Enterprises Balance Sheet as at 31st December,....

Extracts

	2004	N	N
Debtors		600,000	
Less provision for doubtful debt c/d		<u>30,000</u>	570,000
2005			
Debtors		800,000	
Less Provision for doubtful debt		<u>40,000</u>	760,000
2006			
Debtors		500,000	
Less provision for doubtful debt		<u>25,000</u>	
c/d			475,000

(3) Ayoola Enterprises accounting year run from March 1 of one year to February 28 of another year. The policy of the company is to make a 4 percent provision in the aggregate debtors at the end of the year, On March 1 2003, the provision for doubtful debt stood at ₦25,000. During the year, T. Thomas who was a customer of the firm owing ₦100,000 was declared bankrupt in which only 60K per Naira was received on October 31st 2003 and P, Farok's debt of ₦5000 was written off at the end of the financial year- 28th February 2004. The aggregate debtors at the end of the year stood at ₦500,000.

In 2004, Mr. Ojo John's debts of ₦6000 was written off as bad on 31st July. The sales ledger accounts total balance stood at ₦700,000 as at 28th February, 2005

You are required to write up the following accounts for the two years ended.

- i Bad debt account
- ii Provision for bad debt account
- iii Profit and loss account {extracts}
- iv Balance sheet {extracts}

Solution

Ayoola Enterprises
Bad Debt Account

2003	N	2003	N
Oct 31 T. Thomas	40,000	Feb 28 Profit and Loss	45,000

2004			
Feb. 28 P. Frank	<u>5,000</u>		<u>45,000</u>
	45,000		<u>45,000</u>
2004		2005	
July 31 Ojo John	6,000	Feb 28 Profit and Loss	6,000

Provision for Doubtful Debt Account

2004	₦	2003	₦
Feb 28 Profit and Loss (Dec. in prov)	5,000	Mar 1 Bal b/d	25,000
Feb 28 Bal c/d	<u>20,000</u>		<u>25,000</u>
	25,000		
2005		2004	
Feb 28 Bal c/d	28,000	Mar 1 Bal b/d	20,000
		2005	
		Feb 28 Profit and Loss (Increase in provision)	<u>8,000</u>
	<u>28,000</u>		<u>28,000</u>
		2005	
		Mar 1 Bal b/d	28,000

Profit and Loss Account, (Extracts)

2004	₦	2004	₦
Feb 28 Bad debt	45,000	Feb 28 Provision for Bad Debt (Decrease)	5,000
2005			
Feb. 28 Bad debt	<u>6000</u>		
28 provision for Bad debt	<u>8000</u>		

Balance sheet as at 000 (Extracts}

	2004	₦	₦
	Debtors	500,000	
	Less: Provision for bad Debt	<u>20,000</u>	
			<u>480,000</u>
	2005		
	Debtors	700,000	

Less: Provision for Bad debt	<u>28,000</u>	<u>672,000</u>
------------------------------	---------------	----------------

Workings:

2004		N
Previous Provision	=	25,000
Feb.28 Provision $4/100 \times 500,00$	=	<u>20,000</u>
Decrease in provision	=	<u>5,000</u>

2005		
Previous Provision	=	20,000
Feb. 28 provision $4/100 \times 700,000$	=	<u>28,000</u>
Increase in provision	=	<u>8,000</u>

4.0 Conclusion

We have learnt that bad debts are irrecoverable debts from debtors. The circumstance under which bad debts could occur, the accounting entries for bad debts were discussed and worked examples shown.

5.0 Summary

In this unit you have learnt that:

- Bad debts are debts which are irrecoverable from debtors and therefore regarded as losses to the company.
- Any of the following circumstances could lead to occurrence of bad debts:
The death of the debtor, court ruling adjudging the debtor bankrupt, the debtor may be at large.
- Recovered bad debt is a debt which had been written off as irrecoverable from the debtor but was later paid by the debtor either in full or in part.

6.0 Tutor - Marked Assignment

- a. What is bad debt?
- b. State the circumstances under which a bad debt can occur.
- c. What is Recovered bad debt ?

- d. The accounting year of Omoyeni and sons Enterprises ends on 31st December every year. During the three years ended 31st December 2005, 2006 and 2007 the following debts was known and approved to be bad and was written off as bad debts account on the stated date:

Date	Debtors Name	Amount (₦)
May 1, 2005	S. Boulos	26,000
October 31, 2005	O. Bioye	27,000
November 31, 2006	Y. Asa	23,000
January 31 2006	Z. Fola	20,000
August 28, 2007	K. Boboye	31,000
February 312007	B.Nike	19,000
July 31 2007	F.Bayo	17,000

On 31st December 2005, 2006 and 2007 the sales ledger balances stood at ₦900,000, ₦1,000,000 and ₦750,000 respectively. It is the company's policy to make 4% provision for doubtful debts at the end of the year.

You are required to prepare for the year 2005 to 2007.

- i The ledger accounts of each debtor
- ii Bad debts account in which provision for bad debts account is embedded
- iii Profit and loss account {extracts}
- iv Balance sheet {extracts}

7.0 References and other sources

Igban, R.O {2004}: Financial Accounting Made simple. Volume 1 EL - TODA Ventures Limited, Lagos State, Nigeria

Olofinlana L.O. and RW Odewale {1999}: Fundamentals of Accounting, Volume 2
Stecom Publishers, Akure, Ondo State.