

**COMPUTERIZATION OF COMPANIES CASH BUDGET**  
**(CASE STUDY; GREECO INDUSTRIES NIGERIA LIMITED,**  
**ONITSHA, ANAMBRA STATE)**

*BY*

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*TO*

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APPROVAL PAGE

This project has been read and approved by the undersigned on behalf of the department of Maths and Computer Science, School of Post Graduate Studies, Federal University of Technology, Minna as meeting the requirements for the award of Post Graduate Diploma (PGD) in computer science.



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**ABSTRACT**

This project 'Computerization of Companies Cash budget' studies the application of computer in cash budgeting. In developing the software, the writer choosed 'Greeco Industries nigeria limited' as a case study.

Greeco Industries Nigeria Limited is a pharmaceutical company that have been in business for over ten years and has been using the manual approach in preparing her cash budget. The project made an indept loot into what cash budgeting is all about, prior write ups on cash budgeting and the short comings of the manual method of preparing it.it also considered the importance of cash budgeting to a company and why there is a need for computerisation.

It goes further to design and analyze a new system (Computerised) and considered it's cost/benefit. A comparison was made between the existing system and the proposed system in which case the new system was more favoured as it was able to overcome the numerous short comings of the old system and gives a more accurate and reliable result.

The project recommended the adoption of this computerized approach for the 'case study' and other companies in preparing their cash budget.

If the software in this project is used as recommended, it will go a long way in improving the organisational efficiency.

## TABLE OF CONTENTS

	PAGE
TITLE PAGE.....	i
APPROVAL PAGE.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
ABSTRACT.....	v
TABLE OF CONTENTS.....	vi
CHAPTER ONE	
INTRODUCTION TO CASH BUDGETING	
I.I INTRODUCTION TO BUDGETING.....	1
I.I.I BUDGETARY CONTROL.....	1
1.2 CASH BUDGET.....	2
1.3 METHODS OF CASH FORECASTING.....	4
1.4. PURPOSE OF THE STUDY.....	5
1.5 SCOPE OF THE STUDY.....	5
1.6 METHODOLOGY.....	6
1.7 DEFINITION OF TERMS.....	7

<b>CHAPTER TWO</b>		<b>PAGE</b>
<b>CASH BUDGETING IN GREECO INDUSTRIES NIGERIA LIMITED</b>		
2.1	BRIEF HISTORY OF THE CASE STUDY	8
2.2	CASH BUDGET PREPARATION IN THE CASE STUDY	8
2.3	ESTIMATING RECIPITS FROM CREDIT SALES	9
2.4	ESTIMATING RECIPITS FROM OTHER SOURCES	11
2.5	FORECASTING PAYMENT MATERIAL PURCHASE	12
2.6	FORECASTING PAYMENT OF SALARIES AND WAGES	14
2.7.	FORECASTING PAYMENTS OF OVERHEAD EXPENSES	14
2.8	APPROPRIATION OF PROFIT	16
2.9	PREPARING OF THE CASH FORECAST	17
2.10	OBSERVATION ON THE CUREENT SYSTEM	18
2.11	THE NEED FOR COMPUTERISATION.	19
 <b>CHAPTER THREE</b> 		
<b>CASH BUDGETING SYSTEM ANALYSIS AND DESIGN</b>		
3.1	INTRODUCTION	20
3.2	PROBLEM INDENTIFICATION	21
3.3	DESCRIPTION OF THE PROPOSED SYSTEM	22
3.4	OUTPUT SPECIFICATION	23
3.5	INPUT SPECIFICATION	23
3.6	COST/BENEFIT ANALYSIS	24

	PAGE	
3.7	FILES AND PROCEDURE	26
3.8	FLOW CHART	29

## CHAPTER 4

### CASH BUDGET SYSTEM IMPLEMENTATION

4.1	INTRODUCTION	35
4.2	CHOICE OF LANGUAGE	35
4.3	DATE BASE MANAGEMENT SYSTEM	35
4.3	SOFTWARES DEVELOPMENT	36
4.5	STAFF TRAINING	37
4.6	CHANGE OVER	37
4.7	PROGRAM TESTING	37
4.8	SYSTEM MAINTENANCE AND REVIEW	37
4.9	OUTPUTS GENERATED	37

## CHAPTER 5

### SUMMARY, CONCLUSION AND RECOMMENDATION

5.1	SUMMARY	39
5.2	CONCLUSION	39
5.3	RECOMMENDATION	40
	REFERENCES	41
	PROGRAM LISTING	42
	APPENDIX A -OVERHEAD BUDGET OUTPUT	59
	APPENDIX B -SALES BUDGET OUTPUT	60
	APPENDIX C - PURCHASES BUDGET OUTPUT	61
	APPENDIX D - CASH BUDGET OUTPUT	62
	LIST OF DATA USED	63

## CHAPTER ONE

### INTRODUCTION TO CASH BUDGETING

#### 1.1 INTRODUCTION TO BUDGETING

The resources of any Organisation whether material or financial are limited in supply, and are to be judiciously utilized to meet the organisation objectives or goals. In organisations, the strategies for attaining these goals and/or objectives are planned. "A plan quantifies in monetary terms, prepared and approved prior to a defined period of time, usually showing planned income to be generated and/or expenditure to be incurred during that period and the capital to be employed to attain a given objectives" , is known as a budget.

In every organisation, budget is a basis for determining the expected revenue and for ensuring that expenditures remains within the set limits. The Management must therefore know where it wants to be at the end of a future period and know how it intends to get there. It is not enough for an organisation to know what share of the market it wants to achieve because this is an objectives. The organisation must also plan how to achieve this objective, This is budgeting.

##### 1.1.1 BUDGETARY CONTROL

Budgetary control on the other-hand is "The establishment of budgets relating the responsibility of an executive to the requirements of a policy, and the continuous compaison of actual with budgeted results either to ensure by individual action the objective of that policy or to provide a baisi for its revision".

Budgetary control from the above definition involves the comparison of actual results with the planned performance and highlighting variances therefrom, which can also be analysed by cause and responsibility. The budgets establish the responsibility of each executive for a defined budget centres and because the decisions of the executive may affect the achievement of the target set for his centre, he is usually held responsible for the achievement of the target set for his centre. It is obvious that in comparing the achievements with the budgets, greater emphasis are placed on those factors that are within the control of the executive. He is held accountable for those controllable costs. He has to explain reasons for deviations and prepare action plan for the revision of the budget.

Some of those factors which falls within the control of the executive are held responsible on the executive for their non attainment. Having in mind that he (the executive) will be held responsible for his inability to attain a budgeted target when the cause is not beyond his control, he therefore works tirelessly to see that the objective is achieved. This zeal is being motivated by the belief that his achievements will be compared with the set target. This is the essence of budgetary control.

## 1.2. **CASH BUDGETING**

Cash budget is one of the numerous budgets prepared by an Organisation. The company's objectives must have been set, and the policies basic for their achievement must have been translated into operating plans. However, the plans have not considered the way and means of introducing "life blood" into the business. We were meant to understand that on the creation

of man "The Lord God formed man from dust.....and breathed into his nostrils the breath of life and man became a living soul." Having formed man, the Lord did not stop there, He "breathed Life" into it. The best of plan of any organisation will remain a mere academic exercise unless and until funds are provided to translate the plans into action. The cash budget details the ways and means of financing the various operationg plans. This is done by forecasting expected revenue and expenditure to know whether there will be enough cash available at each point of that period to meet the obligation of that period.

Forecasting of cash therefore becomes neccessary. It invoves an estimate of the expected receipts and disbursements during the budget period before adjusting for managements decision on such issues as funding and investment of suplus fund. Issues of funding arrises when it is discovered from the cash budget that there will be cash deficit in a particular period, so-as-to-know how to raise additional fund to take care of the obligations of that period. On the other hand, investment of surplus capital involves knowing what to put the excess or surplus cash into to avoid tying down of cash which can be invested to earn more profit.

The Institute of cost and Management Accountants defined forecasting as "the prediction of relevant future factors affecting an entity and its environment as a basis for formulating and reassessing objectives and strategies and a means to facilitate the preparation of planning decision ".

### 1.3. METHODS OF CASH FORECASTING

The ways and methods of forecasting cash flow do not vary much from one company to another. However, for new companies, they will have problems as a result of lack of experience from which projections can be made. The forecast of cash will involve the identification of sources of revenue and identifying their flow pattern.

Invariably, majority of cash receipts of a company are from sales proceeds. Other sources may include rent receivable and interest on deposits, commercial papers and acceptances bought as well as dividends from shares, debenture interests and proceeds from sale of fixed assets.

On the disbursement side will be all expenses which includes purchases of raw materials, payments of salaries and wages, rent, insurance, audit fees, dividend payable, capital expenditure just to mention but a few.

The method of cash forecasting include among others:

- Estimating receipts from credit sales

- Estimating payment; this will include:

  - forecasting payments for raw materials purchases

  - forecasting payments of salaries and wages

  - forecasting of overhead expenses and

  - Appropriation of profit.

These items will be discussed in detail in the next chapter using the experience of the case study.

#### 1.4. PURPOSE OF THE STUDY

The use of computer-based method to assist in budget process is an extension of the power of the budgeting technique. "The use of computer in this purpose is recent and only in the developed countries". Jacob A. Bornberg and Joel Demski in their book cost accounting: Accounting data for management decisions made the above statement and went ahead to say that "there is at present no typical computer model for use in the planning process". This prompted the writer to carry out a research on this important aspect of an organisational function to develop a workable program on cash budget preparation.

Cash budget is a very important part of a company's budget. As earlier stated, it is the budget that determines whether other budgets will be attainable or not. This work concentrates on the use of computer in preparing cash budget and carrying out a variance analysis of the actual performance and the set target on each level of activity in the cash budget. This will enable the executive concerned know whether he was able to achieve the set target or not and to make adjustments where necessary.

This work will also make forecast of some of the items needed in the cash budget using computer.

#### 1.5. SCOPE OF THE STUDY

The computer has invaded most aspects of human endeavours and has recorded a positive impact on the efficient and effective performance of companies. In the advanced countries of the world, the computer has become an indispensable weapon of development and a thing businesses cannot afford to do without.

This study is limited to how computers can be used in the preparation of the cash budget of companies with a particular reference to GREECO INDUSTRIES NIGEREIA LIMITED here referred to as the case study. It is obvious that most companies have computers which are being used only in writing business letters and doing other minor jobs. This shows that most of the time the computer is idle and its numerous resources are not tapped. There are so many aspects of a business that the computer can be applied to, one of such areas is the preparation and analysis of cash budget. It is obvious that there are other types of budget prepared by companies. This work will only consider cash budgeting and items relating to the preparation of cash budget because of its vital importance as the "Life wire" of a business.

#### 1.6. METHODOLOGY

The method adopted in this research began with a review of texts and journals relating to budgeting and cash budget the actual investigation was carried out by the use of both primary and secondary sources of data. The primary sources from which data was collected include information gathered from the unstructured personal interview conducted with the cost and management Accountant as well as the financial Accountant and sales manager of Greeco Industries Nigeria Limited, Onitsha.

The secondary sources of data utilized for this work include among others the review of literature of various authors relating to the subject

## 1.7. DEFINITION OF TERMS

(a) **COMPUTER:** This is an electronic machine for making calculations, storing and analysing information fed into it and controlling machinery automatically

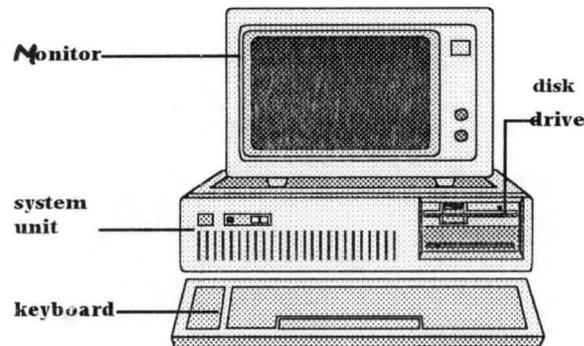


Fig 1 A computer

(b) **PROCEDURES:** These are the steps which unite the whole process and link everything together to produce the desired output.

(c) **VARIANCE:** A variance "is the difference between, standard prices and quantities and actual prices and quantities "

(d) **BUDGET PERIOD:** "The period for which a budget is prepared and used, which may then be sub-divided into control periods". It may be referred to as the period covered by a budget.

(e) **BUDGET CENTRE:** This could also be known as a cost centre. "It is also used to denote a small part of a company for which costs are collected on a separate basis "<sup>6</sup>

(f) **CASH FLOW:** This refers to the ways through which cash comes into a business and the ways they are being expended (used). It is most times called sources and application of fund , cash coming in is referred to as cash inflow and the ways they are used are known as cash outflow.

## **CHAPTER TWO**

### **CASH BUDGETING IN GREECO INDUSTRIES (NIG) LIMITED, ONITSHA.**

#### **2.1 BRIEF HISTORY OF THE CASE STUDY**

Greeco Industries (Nig) limited Onitsha is a pharmaceutical company incorporation in Nigeria in 1978 to Manufacture, import and sell drugs as well as hospital equipments. The company is a private limited company.

Its vast experience in the areas of budgeting and budgetary control prompted the researcher using the company as a case study for the topic in cash budget preparation using computer. During the course of oral interview with some executives of the company, it was discovered that the company owns a computer but uses the computer for other business purposes but not in the preparation of cash budget. The rigorous task of cash budgeting in the firm since its inception has been manually done. In the later parts of this chapter, the ways and manner in which the company prepares its cash budget will be discussed extensively and whether there is a need for computerization or not of its cash budget preparation will be clearly justified.

#### **2.2. CASH BUDGET PREPARATION IN THE SCASE STUDY.**

As ealier said,the preparation of cash budget in the case study is a job that is done normally. To be able to do this, the company starts by identiyfying its sources of revenue and areas of spending. Based on its records, a comparison is made between its budgeted and actual performance of one year and another. Due to its years in business, the company has been able to set a standard of what will enable them in forecasting their revenue and expenditure. When these forecast have been made, the cash budget can now be prepared. The deduction of what looks like

works is expected, the proposed terms will be agreed: with the executive concerned this will include the expected selling expenses along side with any capital gain tax which has to be paid and when.

The timing of receipt of rent receivable is easy to determine. The rent agreement will stipulate the terms of payment, whether yearly half yearly or quarterly in advance and default in payment is not very common.

## 2.5. FORECASTING RECEIPTS FOR MATERIAL PURCHASES.

The Sales budget is the basis for preparing the production budget. The number of units to be produced is the number of units to be sold plus closing inventory desired minus units available in the beginning inventory.

On the other hand, the production budget indicates the number of units of each period, and is the basis for developing the amounts of materials, labour and overhead necessary during the period. The material purchases budget summarises the amount of materials needed to produce the desired production budget in each period. The purchases of materials in each period is estimated to about 60% of the selling price of that period and the amount is payable in the first subsequent period. This shows that purchases are made on credit and payments are made within the discount period.

Example:

The information below shows the derivation of case of materials to be purchased in four months

**GRECO INDUSTRIES NIGERIA LIMITED, ONITSHA**

**PURCHASES BUDGET FOR FOUR MONTHS**

	MONTH 1	MONTH 2	MONTH 3	MONTH 4
	N'000	N'000	N'000	N'000
Cost of materials to be used	200	300	200	300
Add Planned ending inventory	20	15	16	25
Cost of material needed	220	315	216	325
Less Planned opening inventory	25	20	15	16
Cost of material to be purchased	195	295	201	209

Total purchases N1,000,000

Table 2.5.1

From the table above, it can be observed that in month 1, materials worth N195,000 will be purchased and used but the payment for the material will be made in month 2. The cost of material to be purchased in month 2 will be paid in month 3 and so on. So in the cash budget the purchases are recognised in the month they are paid.

## 2.6. FORECASTING PAYMENT OF SALARIES AND WAGES.

Salaries and wages are usually (at least in theory) paid at the time they are incurred, though letters of engagement usually states that salaries will be paid in arrears. The periodicity of payment of salaries and wages vary from one company to another. Some companies pay their workers monthly, other pay bi-monthly or weekly. There are others who pay their workers daily. For a long time in Nigeria workers were paid once in a month but the Morgan Salaries and Wages Commissions of 1963 recommended the bi-monthly system of payment and it was accepted by the government; since then the practice of bi-monthly payment of wages has become wide spread in estimating the periodic cash payment required for salaries and wages, the company usually use gross pay. This is so because though the wages cheque is written net of deductions. Most of the deductions becomes immediately payable to the various beneficiaries. Example of such deductions are P.A.Y.E, Union dues and pension contributions. However, deduction such as car loan repayment where the company gives a direct car loan to certain staff are exempted.

In general terms, the company takes the gross wage bill as the payment due for the month in preparing the wages and salaries payment schedule used for the cash budget

## 2.7. FORECASTING OF PAYMENT OF OVERHEAD EXPENSES.

Before the timing of overhead expenses can be estimated, it is necessary to list the various expenses involved. The primary purpose of such list is to identify those overhead expenses which do not involve the movement of cash. These terms are paper translations and do not involve the payment of cash to an outside party. They include depreciation charges in the accounts, the provision for bad and doubtful debts and stock obsolescence resources. These are book charges and eliminated from the list of overhead expenses.

The remaining items involve the payment of cash so a further analysis of the expenses will be carried out in order to determine those which will be incurred on credit terms, those that will be paid in advance (such as rent and licence fees) and those that will be paid for immediately they are incurred. Having completed this analysis, the payments are then phased according to the budget control periods.

An example of the Companies overhead budget is given below:

**GRECO INDUSTRIES NIGERIA LIMITED**  
**OVERHEAD BUDGET FOR THE YEAR 1996**

	QTR1	QTR2	QTR3	QTR4	TOTAL
	N	N	N	N	N
HEAT	5000	3000	1000	4000	13000
LIGHT	3,200	3,000	2,800	3,000	12000
POWER	5,895	6,235	6,399	6,094	24,623
SUPPLIES	2,945	3,455	3,701	3,243	13,344
MAITENANCE	12,000	13,000	15,000	12,300	52,300
RENT	15,000	15,000	15,000	15,000	60,000
DEPRECIATION	23,500	23,500	23,500	23,500	94,000
DIRECT LABOUR	3,926	4,606	4,734	4,324	17,790
INSURANCE	1,000	1,000	1,000	1,000	4,000
TOTAL	72,466	72,796	73,334	72,461	207,057
LESS DEPRECIATION	23,500	23,500	23,500	23,500	94,000
CASH PAYMENT	48,966	49,296	49,834	48,961	197,057

The basis for the apportionment of over head expenses is on the predetermined rate shown below:

	QRT1	QRT2	QRT3	QRT4
	%	%	%	%
HEAD	38.46	23.08	0.077	30.76
LIGHT	26.67	25	23.33	25
POWER	23.94	25.52	25.99	24.75
SUPPLIES	22.07	25.89	27.74	24.30
MAINTENENCE	22.94	24.86	28.63	23.52
INDIRECT LABOUR	22.07	25.89	27.73	24.31

Rent insurance and depreciation are at least fixed for a reasonable number of years. For the overhead expenses, the balance that will be taken to cash budget is the total of each period less depreciation.

## 2.8. APPROPRIATION OF PROFIT.

The last group of payments that has to be considered in forecasting disbursement is the appropriation of profit earned. Company income tax is a statutory levy made on the profit earned. (ie where a chargeable profit is made, a company is compelled to pay tax on such profit at a standered rate within a specified period). Under the current company tax required, a provisional tax assessment is raised on company before the company even makes up its account. This assessment assumes that the company will make the same level of profit during its financial year just concluded as it did in the preceeding years and should therefore, pay provisional tax at the level of the previous assessment. This provisional tax becomes payable within two monmths from the date of assessmety. The final assessment is then made when the company submits its audited

accounts. Estimating what tax will be paid during the budget period and when it will be paid can be made with little difficulty with the knowledge of the provisional assessment that will be raised and the time it falls due.

The payment of dividend is a little more difficult to forecast. This is because the dividend. Payment depends on several factors. The company's dividend policy and the liquidity position of the company. A rate based on the previous years dividend would be acceptable in projecting dividend payable and the timing will usually be soon after the annual general meeting of the company.

## 2.9. PREPARING THE CASH FORECAST.

It will be recalled that we have discussed so far in this chapter the forecast of cash inflows and outflows arising from the planned operations during the budget period. When this is arranged in the form of schedule we have a statement showing receipts and payments and when the total payments for each period are deducted from the receipts we have the net cash flow from the planned operations for each period. The picture painted by this statement calls for management action.

The only item missing from the cash flow statement will be opening cash balance. This is because the statement is prepared some months before the end of the proceeding budget period and at a time when the actual cash balance cannot be known, a revised cash flow statement is prepared for the current budget period projecting from the actual figure achieved at the last account data for example if the company's fiscal year ends on 31st December and the budget for the following year is prepared in October, a revised cash budget for the coming year will be prepared, projecting for the remaining three months from the actual figures as the the end of

September. The projected closing balance thus obtained will be used as the beginning balance for the cash budget for the following year.

The actual budget starts with the insertion of the opening cash balance into the forecast of inflows and outflows. It then becomes possible to determine what cash will be available during the various control periods. This stage will now take the company to the real decision point in the cashflow planning process. When the picture painted by the adjustment for opening cash balance becomes clear management starts to consider the appropriate action to determine the desired cash position.

#### 2.10. OBSERVATIONS ON THE CURRENT SYSTEM.

The following observations have been made by the researcher on the procedure of preparing cash budget in Greeco Industries Nigerian Limited.

- (a) The process of cash budgeting preparation is carried out manually. In 2.3, 2.5 and 2.7 it was observed that the estimated of receipts from credit sales, payment for material purchases and overhead expenses involves manipulations and since these are done manually the company is exposed to some or all of these problems.
- (b) Human errors cannot be eliminated.
- (c) There is the possibility of using the wrong rate or amount for a particular period.
- (d) The result given by this computation must definitely be misleading.
- (e) Timeless and accuracy of the budget cannot be guaranteed
- (f) The above problem may lead to a disparity between the budget performance and actual performance achieved.

- (g) The system is not cost effective as it involves so many people preparing one or more aspects of the modules needed to make the cash forecast before the cash budget will be prepared.
- (h) It entails keeping so many records.

## 2.11 THE NEED FOR COMPUTERIZATION

"The cash budget problem reflects the importance and frustration of budget preparation. The budget is important because they permit management to anticipate the problems in more than an intuitive fashion. However, its preparation is frustrating because a substantial amount of effort is required to assess the desirability of the various courses of action available to management. Thus, it is desirable to find a modern analytical technique to assist management in this budgeting process".

There is a little question as to whether computers offer their users clear-cut benefits. The need for computerisation is eminent as it would:

1. Take care of the shortcomings observed in the current system.
2. It will lead to better management which cannot be quantified.
3. It is cost effective transferring the administrative task of forecasting and calculating cash inflows and outflows to the computer
4. Timeliness and accuracy of the budget can be guaranteed. The effect of the project trend can be ascertained and decision reached quickly on a plan of action.

## CHAPTER THREE

### CASH BUDGET SYSTEM ANALYSIS AND DESIGN

#### 3.1 INTRODUCTION

The investigation of the business need for information and the design of a better system to supply that information is the major concern of system analysis.

Thus, system analysis is not only concerned with the development of a computer based information system but also with the development of clerical system where the information is processed manually as well as linking business operations and data processing. The information of an electronic data processing method does not mean a complete eradication of manual aids and human labour. It should be noted that in both manual and electronic data processing, the same data processing activities take place, but now we are using computer to produce the results.

In his book, (Data processing and information technology an instructional manual for business and accounting students) C.S. French says "...In Practice, the computerisation of a data processing system entails more than just the automation of parts of the existing system by means of computers. Analysis of an organisations information requirements may show that the requirements will be better served by a newly designed and implemented system with the virtues of both the manual and computerised elements". It is upon the above premise the researcher analyse and design the cash budget preparation of Greco industries Nigeria Limited Onitsha.

### 3.2 PROBLEM IDENTIFICATION

The study of the present system as stated in chapter two showed several problems such as:

A. **DECENTRALIZATION OF BUDGET PREPARATION.** The different data (budgets) needed to aid the preparation of the cash budget are prepared (produced) by different budget centres. For instance the sales budget from which information as to sales for the year is gotten is being prepared by the sales department, purchases budget by purchase (stores) department, overhead expenses budget by more than five departments. This leads to a delay in getting the facts needed for the preparation of the cash budget.

#### B. **TIME CONSTRAINTS**

It has also been observed that the present system makes use of an entirely manual process in the preparation of cash budget which involves different stages and types of manipulations before the cash budget proper is prepared. Therefore this system is short of time economy and should be recalled that information needed for management decision need to be timely and accurate to serve its purpose.

#### C. **QUALITY OF OUTPUT**

The accuracy of cash budget prepared using manual process cannot be totally guaranteed as it is prone to errors, corrections, deletions and alterations. These makes the output to be of a less standard quality. Most of the cash budget prepared are neither typed nor printed but are written in ink thereby making the quality of the output less attractive.

#### D. WASTE OF RESOURCES.

As the budget preparation is decentralized. There will be a lot of repetitions of data entries from one budget centre to another. This amounts to duplication of data and waste of resources. Data independency cannot be achieved but increase redundancy of data. There is also the possibility of loosing a record of data which will lead to repeating the process used to derive that record.

#### 3.3. DESCRIPTION OF THE NEW SYSTEM

1. The proposed system demands that a centralised budget committee be set up which should comprise of all the executives who are involved in producing one or more information needed to prepare the cash budget. As decisions as to what the sales, purchases and overhead for the periods in the year will be, the data will be keyed into the computer for the preparation of the sales, purchases and overhead forecast. The computer will perform the manipulation and determine the proportion of sales collectible in each period, payment of purchases and overhead to be made in each period.
2. When the above is gotten, other fixed expenses can be keyed in and the opening cash balance which will be gotten from the closing cash balance of the proceeding year will equally be keyed in.
3. The computer performs the manipulations, and prepares the cash budget. It will equally determine whether there will be a cash deficit or cash surplus in each period

### 3.4. OUTPUT SPECIFICATION

Two kinds of output are to be produced

1. The intermediate output which will comprise of
  - (a) Schedule of sales collection in each period (sales collection forecast)
  - (b) Schedule of payment of credit purchases
  - (c) Schedule of payment of overhead expenses.

These will enable the committee and management know whether there will be a need for any adjustment before the final output is produced.

2. The final output: This is the cash budget proper which is obtained after their managements consideration of the forecasts. The computer prints out the cash budget for the year as it affects each period.

### 3.5. INPUT SPECIFICATION

The proposed system requires the underlisted as input

- (A) Comprehensive data on sales for each month of the year
- (B) Estimated closing stock for each month of the year
- (C) Comprehensive data on companys estimated overhead expenses for the year
- (D) Data relating to sales of November and December of the proceeding year
- (E) Data on opening stock of materials

2.	System operating cost/annum	N	K
	(a) Equipment maintenance	5000.00	
	(b) Program maintenace	5000.00	
	(c)Labour cost	48000.00	
	(d) Utilities	12000.00	
	(e)Stationary	10000.00	
	(f) Miscellaneous	5000.00	
			N85000.00

$$\begin{aligned}
 \text{Total cost} &= \text{Dev. cost} + \text{system operating cost} \\
 &= 240000 + 85000 \\
 &= \text{N325000.00}
 \end{aligned}$$

3.	System benefit	N	K
	Reduced spending on stationaries	15000.00	
	Other Miscellaneous benefits	500 .00	
	Savigs from duplication of records	20000.00	
			N40,000.00

Other benefits

- (a) High Processing speed and accuracy
- (b) High quality output
- (c) Provide good storage for records and also good security
- (d) Provides direct access to records
- (e) Prompt and timely result for management to aid decision making

## NOTE

Amongst the development cost is a total of N200000 to be incurred on equipment purchases. The organisation already or at present has a working computer system, this means that only about 34000 would be required for development cost. Also in the system operating cost is a labour cost of N48,000, the company has system operators therefore this cost may again not be very necessary. This means that only about N37000 will be required for system operating cost. Therefore total cost necessary would be only about N71,000.

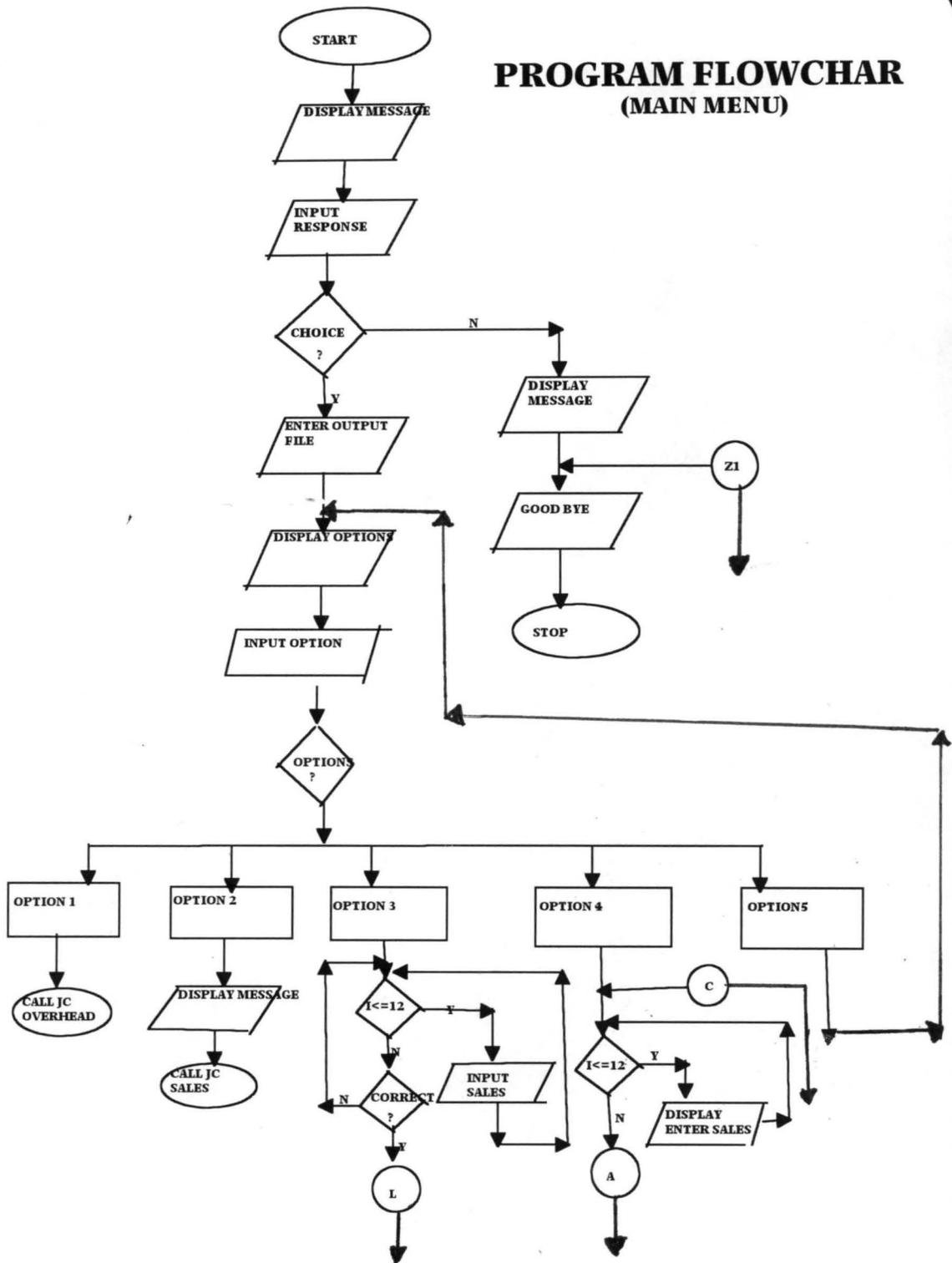
### 3.7. FILE AND PROCEDURES

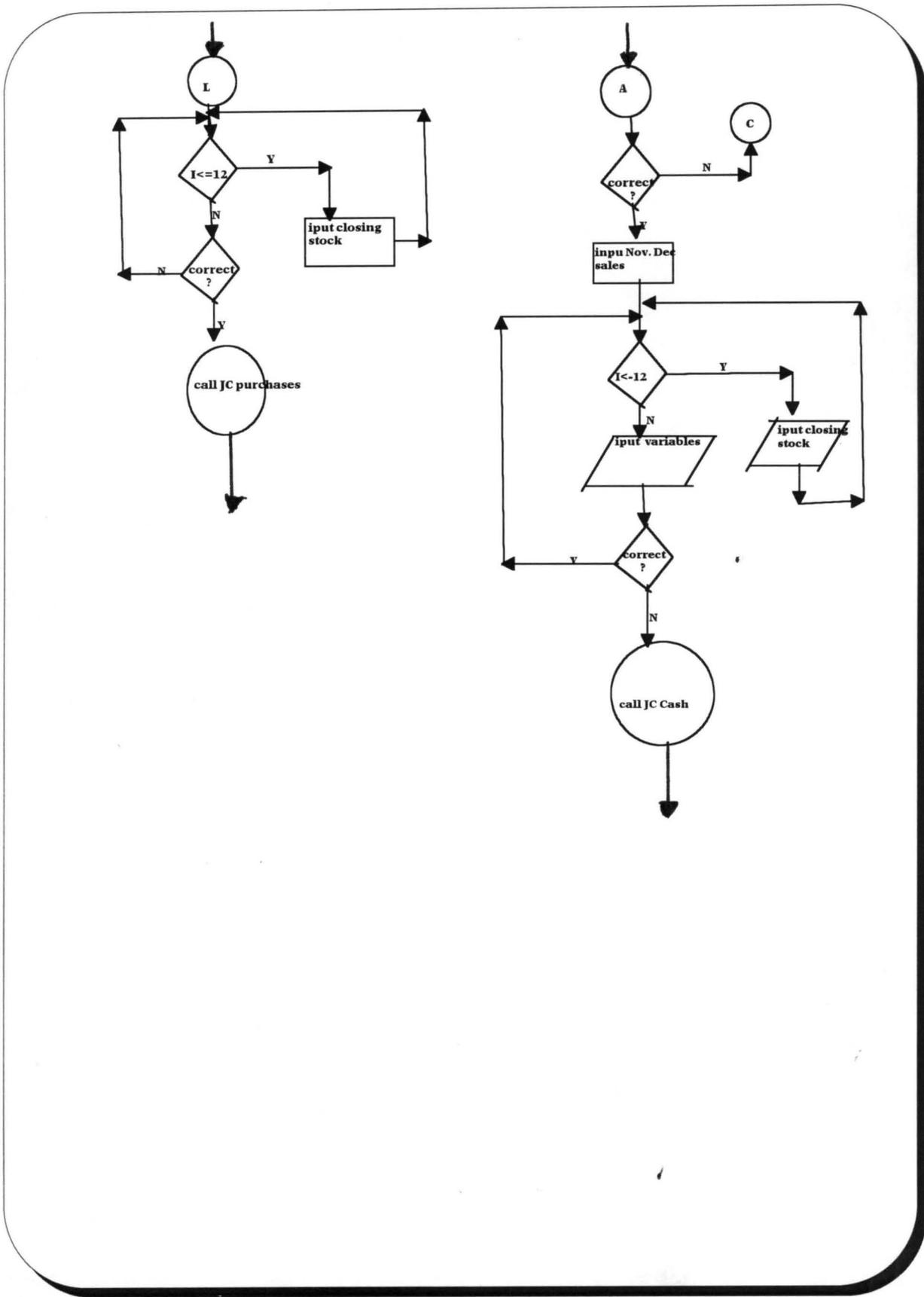
No data base file was created. All data required for processing are entered through the keyboard and on the screen. The program is design in such a way that output is transpfered into an output file. The output file name will be given by whoever will use the program and will be used to retrieve the output by keying in open \*\*.Bud. The output file has an extention \*\*.Bud with which the output could be retrieved and viewed on the screen. The program file on the other hand is divided into five (5) viz

- a) The main program - JC1.Bas and sub programmes
- b) Overhead budget
- c) The sales budget
- d) The purchases Budget
- e) The cash budget proper

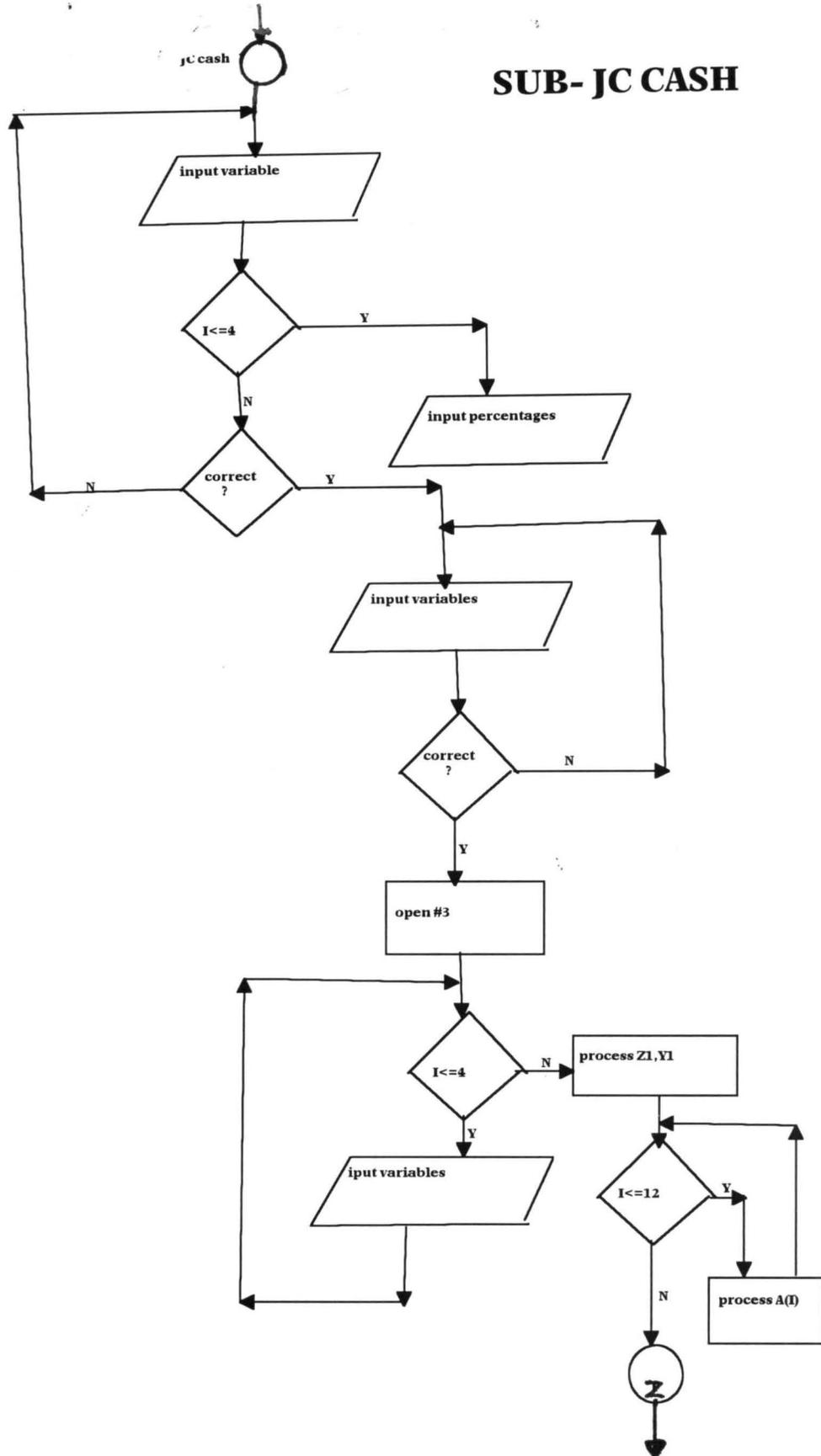
The algorithm used for the design of this program is flow chart. It provides a means of designing a computer program independent of any make of computer or computer language by the use of "symbols that represents specific activities, with the symbols connected by arrowed lines indicating the direction of flow usually from top to the bottom of the page". It indicates the ingredients of structured programming, the sequence, selection, repetition and proceedings or subroutines as the case may be.

# PROGRAM FLOWCHAR (MAIN MENU)



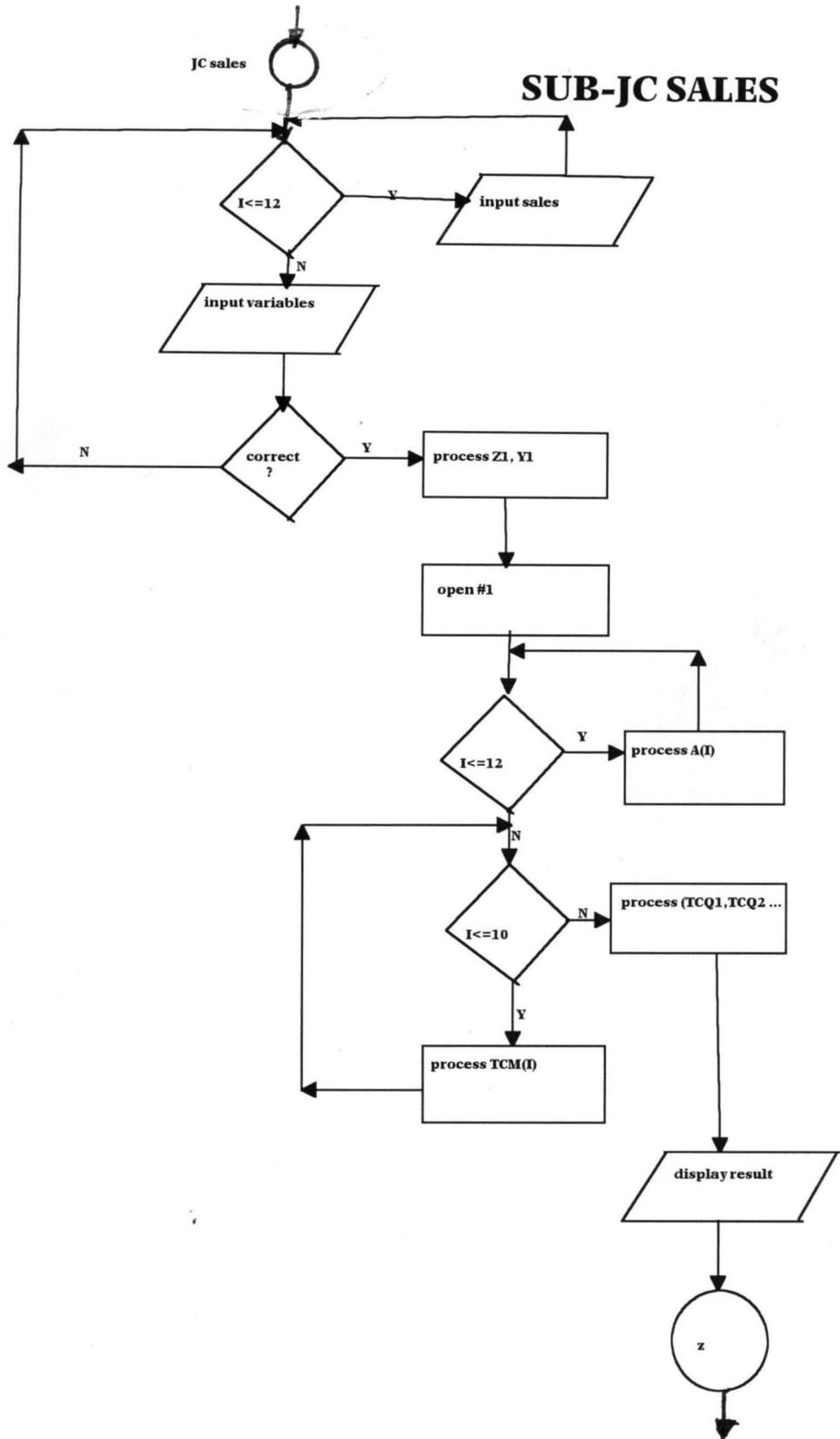


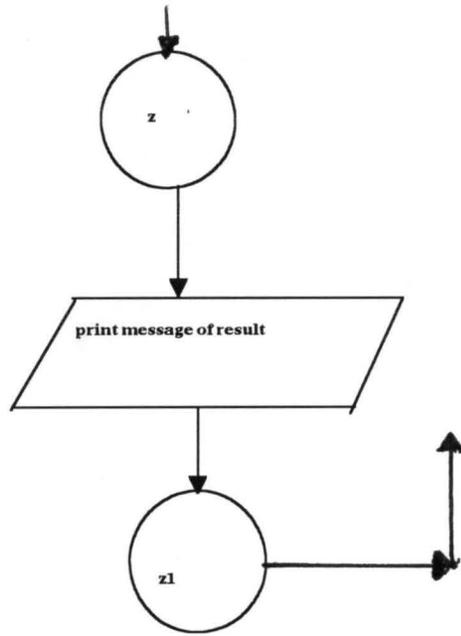
# SUB- JC CASH



JC sales

# SUB-JC SALES





## **CHAPTER FOUR**

### **CASH BUDGET SYSTEM IMPLEMENTATION**

#### **4.1 INTRODUCTION:**

The system to be implemented has been carefully designed to prepare cash budget of companies with particular reference to Greeco Industries Nigeria Limited Onitshal. The program has been coded, tested and is operational.

#### **4.2 CHOICE OF LANGUAGE:**

The software in use here is basic Language. It is user friendly and easy to manipulate. The software is very easy to understand and recommendable for a beginner. It has so many facilities that makes the work very appreciable.

#### **4.3 DATA BASE MANAGEMENT SYSTEM:**

This is a complex software system which constructs, expands and maintain data in the base. It provides an interface between users and the data in the base. However, because of the nature of the work, (does not process records) it only manipulates data and gives result, no data base was created. All data (as they may change weekly, monthly, quarterly, half yearly or yearly) are supplied by the user on the screen, through the keyboard. An output file name is given by whoever is using the program and with this the output can be retrieved and printed by typing **\*\*bud.**

#### 4.4 SOFTWARE DEVELOPMENT:

In order to access the program, the user is expected to type in the command `CD\JONES` and the prompt will access JONES directory. Next the user will type `Qbasic` to get into the Qbasic environment. The user should press escape key and go to the control panel by pressing `Alt.` and highlighting file and press the (enter) key, highlight open and the program will be displayed on the screen. The user should press (F5) to run the program, a message will be displayed and then the main menu whereby the user is expected to select from amongst the options as listed below:

- 1..... Overhead budget
- 2 ..... Sales budget
- 3 ..... Purchase budget
- 4 ..... Cash budget
- 5.....End

Once an option is selected, the system will provide the user with a blank screen for data to variables and responses to be entered. If the data entry exercise for a particular option is completed, the user is given the opportunity to check the accuracy of the data entered.

If the data is correct, the computer will process it and transfer the result to the output file supplied by the user and the system will return to the main menu.

#### 4.5 STAFF TRAINING:

The operational staff concerned with the use of the software are expected to be given at least one week of intensive training on the use of the package.

#### 4.6 CHANGE OVER:

The change over from the old system to the new one is expected to be direct changeover where all the elements of the old system are replaced with the new one. The data for the changeover is however, to be supplied by the management of Greeco Industries Nigeria Limited, Onitsha.

#### 4.7 PROGRAM TESTING:

The data used for the testing of the package is obtained from the cash budget records of Greeco Industries Nigerian Limited for 1996. The output for the overhead budget can be seen in appendix A, that of the sales budget in appendix B, purchase budget Appendix C. These are intermediate outputs but the final output which is the cash budget output can be seen in appendix D.

#### 4.8 SYSTEM MAINTENANCE AND REVIEW:

As time goes on, there may be need for more variables of income and expenditure to be introduced by Greeco Industries Nigerian Limited. This may entail a review of this package and some minor modification, the user is therefore advised to get in touch with the developer of the package to effect necessary adjustments to avoid unauthorised tampering and costly damage to

the program. But if the user can get a programmer who is versatile in Qbasic, the adjustments can be easily made to incorporate the new variables or eliminate unwanted ones. The user should also know that it is less costly maintaining a package than to go for a new one.



```
10 PRINT "Choose any of the options below for what you want to do"
```

```
PRINT  
PRINT  
PRINT "1.....OVERHEAD BUDGET"  
PRINT "2.....SALES BUDGET"  
PRINT "3.....PURCHASES BUDGET"  
PRINT "4.....CASH BUDGET"  
PRINT "5.....END"
```

```
PRINT  
INPUT "ENTER YOUR CHOICE"; CHO  
CLS
```

```
IF (CHO < 1) OR (CHO > 5) THEN  
PRINT "YOU HAVE ENTERED A WRONG CHOICE"
```

```
FOR i = 1 TO 8000
```

```
NEXT i
```

```
CLS
```

```
GOTO 10
```

```
ELSEIF CHO = 1 THEN
```

```
CALL JCOVERHEAD
```

```
GOTO 100
```

```
ELSEIF CHO = 2 THEN
```

```
COLOR 2, 14: CLS
```

```
GOTO 20
```

```
ELSEIF CHO = 3 THEN
```

```
GOTO 30
```

```
ELSEIF CHO = 4 THEN
```

```
GOTO 40
```

```
ELSE
```

```
GOTO 110
```

```
END IF
```

```
COLOR 2, 10: CLS
```

```
20 PRINT "YOU ARE ABOUT MAKING ENTRIES TO PREPARE SALES BUDGET"
```

```
FOR i = 1 TO 5000
```

```
NEXT i
```

```
CALL jcsales
```

```
GOTO 100
```

```
30 FOR i = 1 TO 12
```

```
PRINT "enter unit to be sold for month"; i; : INPUT us(i)
```

```
NEXT i
```

```

      CLS
35 FOR i = 1 TO 12
  PRINT " enter units of expected closing stock for month"; i;
  : INPUT ucs(i)
NEXT i
END IF
INPUT "are your entries correct (y/n)"; resp$
IF resp$ = "n" THEN
GOTO 35
ELSE
CLS
  CALL jcPURCHASES
  END IF
  CLS
  GOTO 100
40 CLS : COLOR 4, 10
41 PRINT "enter cost per unit of materials to be sold"; :
INPUT cpu
FOR i = 1 TO 12
PRINT "enter unit to be sold for month"; i; : INPUT us(i)
NEXT i
INPUT "are your entries correct (y/n)"; resp$
IF resp$ = "n" THEN
GOTO 41
ELSE
CLS
45 FOR i = 1 TO 12
  PRINT " enter units of expected closing stock for month"; i;
  : INPUT ucs(i)
NEXT i
END IF
INPUT "are your entries correct (y/n)"; resp$
IF resp$ = "n" THEN
GOTO 45
ELSE
CLS
48 INPUT "ENTER cost of materials sold in DECEMBER OF PREVIOUS
YEAR"; z
INPUT "ENTER cost of CL.STOCK FOR DECEMBER OF PREVIOUS YEAR";
csd
INPUT "enter cost of opening stock for december of previous
year"; osd
INPUT "enter selling price per unit"; SPU
END IF
  INPUT "are your entries correct (y/n)"; resp$

```

```

IF resp$ = "n" THEN
GOTO 48
ELSE
CLS
CALL JCCASH
END IF
CLS
100 PRINT "YOUR RESULT IS IN YOUR OUTPUT FILE"
110 PRINT "
GOOD BYE"
FOR i = 1 TO 2500
NEXT i
END

SUB JCCASH
SHARED namel$, SL, osd, csd, cpu, us, ucs, SPU, usl, z
DIM A(12), b(12), c(12), tcm(10), pm(12), IRQ(4), DRQ(4),
OBS(4), PO(4)
DIM OIQ(4), AVEQ(4), cs1(12), cs(12)
INPUT "enter sales for november of previous year"; p
INPUT "enter sales for december of previous year"; k
50 INPUT "ENTER AMOUNT FOR HEAT"; H
INPUT "ENTER AMOUNT FOR LIGHT"; L
INPUT "ENTER AMOUNT FOR POWER"; p
INPUT "ENTER AMOUNT FOR SUPPLIES"; S
INPUT "ENTER AMOUNT FOR INSURANCE"; IN
INPUT "ENTER AMOUNT FIR MAINTENANCE"; M
INPUT "ENTER AMOUNT FOR INDIRECT EXPENSES"; IE
INPUT "ENTER AMOUNT FOR RENT PER quater"; R
INPUT "ENTER OTHERS expenses"; O
FOR i = 1 TO 4
PRINT "ENTER THE PERCENTAGE OF OTHER EXPENSES PAYABLE IN
quater"; i; : INPUT PO(i)
NEXT i
INPUT "ARE YOUR ENTRIES CORRECT (Y/N)"; resp$
IF resp$ = "N" OR resp$ = "n" THEN
GOTO 50
ELSE
CLS
70 INPUT "enter fixed expenses"; FX
INPUT "enter annual property tax"; APT
INPUT "enter cash dividend payable"; CDP
INPUT "enter equipment replacement cost"; erc
INPUT "enter advertisement expenses"; AE
INPUT "enter balance on bank loan"; BL
INPUT "enter enter amount of bank loan payable in each month";

```

```

BLP
INPUT "enter cash balance on december of previous year"; CB
END IF
INPUT "are your entries corrct(y/n)"; resp$
IF resp$ = "n" THEN
GOTO 70
ELSE
OPEN namel$ FOR OUTPUT AS #3
END IF
FOR i = 1 TO 4
PRINT "ENTER INTEREST RECEIVABLE IN QUATER"; i; : INPUT IRQ(i)
NEXT i
FOR i = 1 TO 4
PRINT "ENTER AMOUNT REALISABLE FROM SALE OF ASSETS IN QUATER";
i; : INPUT OBS(i)
NEXT i
FOR i = 1 TO 4
PRINT "enter other income for quater"; i; : INPUT OIQ(i)
NEXT i
FOR i = 1 TO 4
PRINT "ENTER DIVIDEND RECEIVABLE IN QUATER"; i; : INPUT DRQ(i)
NEXT i
FOR i = 1 TO 12
SL(i) = us(i) * SPU
csl(i) = us(i) * cpu
cs(i) = ucs(i) * cpu
NEXT i
k1 = .6 * k: k2 = .3 * k: k3 = .09 * k
p1 = .6 * p: p2 = .3 * p: p3 = .09 * p
FOR i = 1 TO 12
A(i) = .6 * SL(i): b(i) = .3 * SL(i): c(i) = .09 * SL(i)
NEXT i
tpOD = (z + csd) - osd: TPM1 = (csl(1) + cs(1)) - csd
TPM2 = (csl(2) + cs(2)) - cs(1): TPM3 = (csl(3) + cs(3)) -
cs(2)
TPM4 = (csl(4) + cs(4)) - cs(3): TPM5 = (csl(5) + cs(5)) -
cs(4)
TPM6 = (csl(6) + cs(6)) - cs(5): TPM7 = (csl(7) + cs(7)) -
cs(6)
TPM8 = (csl(8) + cs(8)) - cs(7): TPM9 = (csl(9) + cs(9)) -
cs(8)
TPM10 = (csl(10) + cs(10)) - cs(9): TPM11 = (csl(11) + cs(11))
- cs(10)
TPM12 = (csl(12) + cs(12)) - cs(11)
FOR i = 1 TO 12
NEXT i

```

avoid giving a misleading information to the management of the company and to guard against taking a wrong decision.

Since the world today is now in computer age and " virtually everything is going computerized, information is made available at the finger tips of man through information technology which is 100% computer oriented.

### 5.3 RECOMMENDATION

Based on the above conclusion therefore, if we must have an action or make a good decision, then the information needed must be truly . In this regard, it will be reasonable to conclude that the preparation of cash budget in greeco industries Nigeria limited, Onitsha and other companies in Nigeria be automated . such system could replace the existing method in either of paralleled or direct changeover. However, a direct changeover would be preferred.

## REFERENCE

- 1 ALADE.O.A:-Automated Library Circulation System, case study, The Polytechnic, Ibadan. (an unpublished project, 1994)
- 2 FRENCH.C.S:-Data processing and information technology an instrumental manual for business and accounting students, DP publications, London, 2rd edition, 1990.
- 3 HOLMES B.J:-Basic Programming( a complete text), ELBS with DP Publications, 3rd edition, 1992.
- 4 KIRKPATRICK E.M:-Chambers Universal Learners Dictionary, Edimburg, reprinted 1991.
- 5 SIMEON IBITOYE:- The Hand Book of Budgetary control, Graham Born Publishers, U.K, 1st edition, 1985.
- 6 Ibid The Hand Book of Budgeting, Graham Born publishers, U.K, 1st edition,1987.

# PROGRAMME LISTING

```
DECLARE SUB JCOVERHEAD ()
DECLARE SUB jcsales ()
DECLARE SUB jcPURCHASES ()
DECLARE SUB JCCASH ()

DIM SHARED SL(12), us(12), usl(12), ucs(12)
CLS
COLOR 4, 10
CLS
PRINT"*****"
PRINT"*****"
PRINT"**"
PRINT"**          COMPUTERISATION OF CASH BUDGET PREPARATION"
PRINT"**                      CASE STUDY"
PRINT"**          GREECO INDUSTRIES (NIG.) LTD. ONITSHA"
PRINT"**                      DEVELOPED BY"
PRINT"**          MR OKORONKWO JONES CHIKODI"
PRINT"**                      PGD/MCS/211/96"
PRINT"**                      SUPERVISED BY"
PRINT"**                      DR. S.A.REJU"
PRINT"**          FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA"
PRINT"**                      NIGERIA"
PRINT"*****"
PRINT"*****"
PRINT
PRINT "          please wait"
    FOR i = 1 TO 15000
    NEXT i
    CLS
    COLOR 4, 10: CLS
7 INPUT " HAVE YOU COME TO PREPARE CASH BUDGET (Y/N)?"; resp$
    IF resp$ = "Y" OR resp$ = "y" THEN
    CLS
    INPUT "enter output file name"; name$
    name1$ = name$ + ".bud"
    ELSE
PRINT "YOU ARE IN THE WRONG PLACE"
    FOR i = 1 TO 8000
    NEXT i
    CLS
    GOTO 110
    END IF
```

```

PQ1 = tpOD + TPM1 + TPM2: PQ2 = TPM3 + TPM4 + TPM5
PQ3 = TPM6 + TPM7 + TPM8: pq4 = TPM9 + TPM10 + TPM11
tPQ1 = TPM1 + TPM2 + TPM3: tPQ2 = TPM4 + TPM5 + TPM6
tPQ3 = TPM6 + TPM7 + TPM8 + TPM9: tpq4 = TPM10 + TPM11 + TPM12
FOR i = 1 TO 12
A(i) = .6 * SL(i): b(i) = .3 * SL(i): c(i) = .09 * SL(i)
TCMJ = p3 + k2 + A(1): TCMF = k3 + A(2) + b(1)
NEXT i
FOR i = 1 TO 10
tcm(i) = c(i) + b(i + 1) + A(i + 2)
NEXT i
TCQ1 = TCMJ + TCMF + tcm(1): TCQ2 = tcm(2) + tcm(3) + tcm(4)
TCQ3 = tcm(5) + tcm(6) + tcm(7): TCQ4 = tcm(8) + tcm(9) +
tcm(10)
PRINT
PRINT
HQ1 = (38.46 / 100) * H: HQ2 = (23.08 / 100) * H
HQ3 = (7.7 / 100) * H: HQ4 = (30.76 / 100) * H
LQ1 = (26.67 / 100) * L: LQ2 = (25 / 100) * L
LQ3 = (23.33 / 100) * L: LQ4 = (25 / 100) * L
PQ1 = (23.94 / 100) * p: PQ2 = (25.32 / 100) * p
PQ3 = (25.99 / 100) * p: pq4 = (24.75 / 100) * p
SQ1 = (22.07 / 100) * S: SQ2 = (25.89 / 100) * S
SQ3 = (27.77 / 100) * S: SQ4 = (24.27 / 100) * S
MQ1 = (22.94 / 100) * M: MQ2 = (25.89 / 100) * M
MQ3 = (27.73 / 100) * M: MQ4 = (23.24 / 100) * M
IEQ1 = (27.07 / 100) * IE: IEQ2 = (25.89 / 100) * IE
IEQ3 = (22.73 / 100) * IE: IEQ4 = (24.31 / 100) * IE
oq1 = (PO(1) / 100) * O: oq2 = (PO(2) / 100) * O
oq3 = (PO(3) / 100) * O: oq4 = (PO(4) / 100) * O
TOQ1 = HQ1 + LQ1 + PQ1 + SQ1 + MQ1 + IEQ1 + R + IN + oq1
TOQ2 = HQ2 + LQ2 + PQ2 + SQ2 + MQ2 + IEQ2 + R + IN + oq2
TOQ3 = HQ3 + LQ3 + PQ3 + SQ3 + MQ3 + IEQ3 + R + IN + oq3
TOQ4 = HQ4 + LQ4 + pq4 + SQ4 + MQ4 + IEQ4 + R + IN + oq4
PRINT
APT1 = APT / 2: APT2 = APT / 2
AE1 = AE / 3: AE2 = AE - AE1
CDP1 = CDP / 3: CDP2 = CDP - CDP1
AVEQ(1) = (SL(1) + SL(2) + SL(3)) * .05: AVEQ(2) = (SL(4) +
SL(5) + SL(6)) * .05
AVEQ(3) = (SL(7) + SL(8) + SL(9)) * .05: AVEQ(4) = (SL(10) +
SL(11) + SL(12)) * .05
BK1 = BL * .05: BK2 = (BL - BLP) * .05: BK3 = (BL - (BLP * 2))
* .05
BK4 = (BL - (BLP * 3)) * .05: BK5 = (BL - (BLP * 4)) * .05:
BK6 = (BL - (BLP * 5)) * .05

```

BK7 = (BL - (BLP \* 6)) \* .05: BK8 = (BL - (BLP \* 7)) \* .05:  
 BK9 = (BL - (BLP \* 8)) \* .05  
 BK10 = (BL - (BLP \* 9)) \* .05: BK11 = (BL - (BLP \* 10)) \* .05:  
 BK12 = (BL - (BLP \* 11)) \* .05  
 BKQ1 = BK1 + BK2 + BK3: BKQ2 = BK4 + BK5 + BK6  
 BKQ3 = BK7 + BK8 + BK9: BKQ4 = BK10 + BK11 + BK12  
 TRQ1 = CB + TCQ1 + OBS(1) + OIQ(1) + IRQ(1) + DRQ(1)  
 TDQ1 = BLP + FX + BKQ1 + tPQ1 + TOQ1 + AE1 + AVEQ(1) + oq1 +  
 erc  
 ECB1 = TRQ1 - TDQ1  
 TRQ2 = ECB1 + (TCQ2 + OIQ(2) + IRQ(2) + DRQ(2) + OBS(2))  
 TDQ2 = BLP + FX + BKQ2 + tPQ2 + TOQ2 + APT1 + CDP1 + AVEQ(2) +  
 oq2 + erc  
 ECB2 = TRQ2 - TDQ2  
 TRQ3 = ECB2 + (TCQ3 + OIQ(3) + IRQ(3) + DRQ(3) + OBS(3))  
 TDQ3 = BLP + FX + BKQ3 + tPQ3 + TOQ3 + AE2 + AVEQ(3) + erc +  
 oq3  
 ECB3 = TRQ3 - TDQ3  
 TRQ4 = ECB3 + (TCQ4 + OIQ(4) + IRQ(4) + DRQ(4) + OBS(4))  
 TDQ4 = BLP + erc + FX + BKQ4 + TOQ4 + APT2 + CDP2 + AVEQ(4) +  
 oq4 + tPQ4  
 ECB4 = TRQ4 - TDQ4  
 CLS

PRINT #3, TAB(25); "GREECO INDUSTRIES NIGERIA LIMITED  
 ONITSHA"  
 PRINT #3, TAB(25);  
 "-----"  
 PRINT #3, TAB(22); "CASH BUDGET FOR THE YEAR ENDED 31ST  
 KEMBER 19.."  
 PRINT #3, TAB(22);  
 "-----"  
 PRINT #3, TAB(25); "quater 1"; TAB(40); "quater 2";  
 TAB(55); "quater 3";  
 PRINT #3, TAB(68); "quater 4"  
 PRINT #3, TAB(25); "====="; TAB(40); "=====";  
 TAB(55);  
 PRINT #3, "====="; TAB(68); "=====";  
 PRINT #3, TAB(26); "#"; TAB(41); "#"; TAB(56); "#";  
 TAB(66); "#"  
 PRINT #3, "OPENING CASH BALANCE"; ;  
 PRINT #3, USING "#####.##"; TAB(25); CB; TAB(40);  
 ECB1; TAB(55);  
 PRINT #3, USING "#####.##"; ECB2; TAB(68); ECB3  
 PRINT #3, "CASH RECEIPTS:"  
 PRINT #3, "-----"  
 PRINT #3, "REGULAR SALES"; ;

```

PRINT #3, USING "#####.##"; TAB(25); TCQ1; TAB(40);
TCQ2;
PRINT #3, USING "#####.##"; TAB(55); TCQ3; TAB(68);
TCQ4
PRINT #3, "OBSOLETE STOCK"; ;
PRINT #3, USING "#####.##"; TAB(25); OBS(1); TAB(40);
OBS(2); TAB(55);
PRINT #3, USING "#####.##"; OBS(3); TAB(68); OBS(4)
PRINT #3, "OTHER INCOME"; ;
PRINT #3, USING "#####.##"; TAB(25); OIQ(1); TAB(40);
OIQ(2); TAB(55);
PRINT #3, USING "#####.##"; OIQ(3); TAB(68); OIQ(4)
PRINT #3, "BANK INTEREST RECEIVABLE"; ;
PRINT #3, USING "#####.##"; TAB(25); IRQ(1); TAB(40);
PRINT #3, USING "#####.##"; IRQ(2); TAB(55); IRQ(3);
TAB(68); IRQ(4)
PRINT #3, "DIVIDEND RECEIVABLE"; ;
PRINT #3, USING "#####.##"; TAB(25); DRQ(1); TAB(40);
PRINT #3, USING "#####.##"; DRQ(2); TAB(55); DRQ(3);
TAB(68); DRQ(1)
PRINT #3, TAB(25); "-----"; TAB(40); "-----";
TAB(55);
PRINT #3, "-----"; TAB(68); "-----"
PRINT #3, "TOTAL RECEIPT"; ;
PRINT #3, USING "#####.##"; TAB(25); TRQ1; TAB(40);
TRQ2;
PRINT #3, USING "#####.##"; TAB(55); TRQ3; TAB(68);
TRQ4
PRINT : PRINT
PRINT #3, "LESS CASH DISBURSEMENTS:"
PRINT #3, "-----"
PRINT #3, "INVENTORY PURCHASES"; ;
PRINT #3, USING "#####.##"; TAB(25); tPQ1; TAB(40);
tPQ2; TAB(55);
PRINT #3, USING "#####.##"; tPQ3; TAB(68); tPQ4
PRINT #3, "FIXED EXPENSES"; ;
PRINT #3, USING "#####.##"; TAB(25); FX; TAB(40); FX;
PRINT #3, USING "#####.##"; TAB(55); FX; TAB(68); FX
PRINT #3, "VARIABLE EXPENSES"; ;
PRINT #3, USING "#####.##"; TAB(25); AVEQ(1);
TAB(40);
PRINT #3, USING "#####.##"; AVEQ(2); TAB(55);
AVEQ(3); TAB(68); AVEQ(4)
PRINT #3, "PROPERTY TAX";
PRINT #3, USING "#####.##"; TAB(40); APT1; TAB(68);
APT2

```

```

PRINT #3, "BANK LOAN"; TAB(25);
PRINT #3, USING "#####.##"; BLP; TAB(40); BLP;
TAB(55); BLP; TAB(68); BLP
PRINT #3, "EQUIPMENT REPLACEMENT";
PRINT #3, USING "#####.##"; TAB(25); erc; TAB(40);
erc; TAB(55); erc; TAB(68); erc
PRINT #3, "INTEREST ON LOAN";
PRINT #3, USING "#####.##"; TAB(25); BKQ1; TAB(40);
BKQ2; TAB(55); BKQ3; TAB(68); BKQ4
PRINT #3, "OVERHEAD EXPENSES";
PRINT #3, USING "#####.##"; TAB(25); TOQ1; TAB(40);
TOQ2; TAB(55); TOQ3; TAB(68); TOQ4
PRINT #3, "CASH DIVIDEND PAYABLE";
PRINT #3, USING "#####.##"; TAB(40); CDP1; TAB(68);
CDP2
PRINT #3, "ADVERTISEMENT EXPENSES";
PRINT #3, USING "#####.##"; TAB(25); AE1; TAB(55);
AE2
PRINT #3, "OTHER EXPENSES";
PRINT #3, USING "#####.##"; TAB(25); oq1; TAB(40);
oq2; TAB(55); oq3; TAB(68); oq4
PRINT #3, TAB(25); "-----"; TAB(40); "-----";
TAB(55); "-----"; TAB(68); "-----"
PRINT #3, "TOTAL PAYMENT";
PRINT #3, USING "#####.##"; TAB(25); TDQ1; TAB(40);
TDQ2; TAB(55); TDQ3; TAB(68); TDQ4
PRINT #3, TAB(25); "-----"; TAB(40); "-----";
TAB(55); "-----"; TAB(68); "-----"
PRINT #3, "CASH BALANCE";
PRINT #3, USING "#####.##"; TAB(25); ECB1; TAB(40);
ECB2; TAB(55); ECB3; TAB(68); ECB4
PRINT #3, TAB(25); "====="; TAB(40); "=====";
TAB(55); "====="; TAB(68); "====="

```

END SUB

SUB JCOVERHEAD

SHARED name1\$

DIM PO(4)

CLS

190 PRINT "YOU ARE ABOUT PREPARING OVERHEAD BUDGET"

```

200 INPUT "ENTER AMOUNT FOR HEAT"; H
INPUT "ENTER AMOUNT FOR LIGHT"; L
INPUT "ENTER AMOUNT FOR POWER"; p
INPUT "ENTER AMOUNT FOR SUPPLIES"; S

```

```

INPUT "ENTER AMOUNT FOR INSURANCE PAYABLE PER QUATER ";
IN
INPUT "ENTER AMOUNT FIR MAINTENANCE"; M
INPUT "ENTER AMOUNT FOR INDIRECT EXPENSES"; IE
INPUT "ENTER AMOUNT FOR DEPRECIATION PER QUATER"; d
INPUT "ENTER FOR RENT PER quater"; R
INPUT "ENTER OTHERS expenses"; O
FOR i = 1 TO 4
PRINT "ENTER THE PERCENTAGE OF OTHER EXPENSES PAYABLE IN
quater"; i; : INPUT PO(i)
NEXT i
INPUT "ARE YOUR ENTRIES CORRECT (Y/N)?" ; CHO$
IF CHO$ = "N" OR CHO$ = "n" THEN
CLS
PRINT "
DON'T WORRY"
FOR i = 1 TO 8000
NEXT i
CLS
GOTO 200
ELSE
CLOSE : OPEN name1$ FOR OUTPUT AS #4
HQ1 = (38.46 / 100) * H: HQ2 = (23.08 / 100) * H
HQ3 = (7.7 / 100) * H: HQ4 = (30.76 / 100) * H
LQ1 = (26.67 / 100) * L: LQ2 = (25 / 100) * L
LQ3 = (23.33 / 100) * L: LQ4 = (25 / 100) * L
PQ1 = (23.94 / 100) * p: PQ2 = (25.32 / 100) * p
PQ3 = (25.99 / 100) * p: pq4 = (24.75 / 100) * p
SQ1 = (22.07 / 100) * S: SQ2 = (25.89 / 100) * S
SQ3 = (27.77 / 100) * S: SQ4 = (24.27 / 100) * S
MQ1 = (22.94 / 100) * M: MQ2 = (25.89 / 100) * M
MQ3 = (27.73 / 100) * M: MQ4 = (23.24 / 100) * M
IEQ1 = (27.07 / 100) * IE: IEQ2 = (25.89 / 100) * IE
IEQ3 = (22.73 / 100) * IE: IEQ4 = (24.31 / 100) * IE
oeq1 = (PO(1) / 100) * O: oeq2 = (PO(2) / 100) * O
oeq3 = (PO(3) / 100) * O: oeq4 = (PO(4) / 100) * O
TOQ1 = HQ1 + LQ1 + PQ1 + SQ1 + MQ1 + IEQ1 + d + R +
oeq1 + IN
TOQ2 = HQ2 + LQ2 + PQ2 + SQ2 + MQ2 + IEQ2 + d + R +
oeq2 + IN
TOQ3 = HQ3 + LQ3 + PQ3 + SQ3 + MQ3 + IEQ3 + d + R +
oeq3 + IN
TOQ4 = HQ4 + LQ4 + pq4 + SQ4 + MQ4 + IEQ4 + d + R +
oeq4 + IN
TIN = IN * 4: TD = d * 4: TR = R * 4
NOQ1 = TOQ1 - d: NOQ2 = TOQ2 - d: NOQ3 = TOQ3 - d: NOQ4

```

```

= TOQ4 - d
  TTO = TOQ1 + TOQ2 + TOQ3 + TOQ4
  TNO = NOQ1 + NOQ2 + NOQ3 + NOQ4
  END IF
  CLS
  PRINT #4, TAB(20); "SCHEDULE FOR THE PAYMENT OF OVERHEAD
"
  PRINT #4, TAB(20); "EXPENSES FOR THE YEAR ENDED DEC.31
19.."
  PRINT #4, TAB(20);
"-----"
  PRINT #4, TAB(20); "quater 1"; TAB(30); "quater 2";
TAB(40); "quater 3";
  PRINT #4, TAB(50); "quater 4"; TAB(60); "TOTAL"
  PRINT #4, TAB(21); "#"; TAB(31); "#"; TAB(41); "#";
TAB(51);
  PRINT #4, "#"; TAB(61); "#"
  PRINT #4, "HEAT"; TAB(20); HQ1; TAB(30); HQ2; TAB(40);
HQ3; TAB(50);
  PRINT #4, HQ4; TAB(60); H
  PRINT #4, "LIGHT"; TAB(20); LQ1; TAB(30); LQ2; TAB(40);
LQ3; TAB(50);
  PRINT #4, LQ4; TAB(60); L
  PRINT #4, "POWER"; TAB(20); PQ1; TAB(30); PQ2; TAB(40);
PQ3;
  PRINT #4, TAB(50); pq4; TAB(60); p
  PRINT #4, "INSURANCE"; TAB(20); IN; TAB(30); IN; TAB(40);
IN;
  PRINT #4, TAB(50); IN; TAB(60); TIN
  PRINT #4, "SUPPLIES"; TAB(20); SQ1; TAB(30); SQ2;
TAB(40); SQ3;
  PRINT #4, TAB(50); SQ4; TAB(60); S
  PRINT #4, "MAINTENANCE"; TAB(20); MQ1; TAB(30); MQ2;
TAB(40); MQ3;
  PRINT #4, TAB(50); MQ4; TAB(60); M
  PRINT #4, "INDIRECT EXPENSES"; TAB(20); IEQ1; TAB(30);
IEQ2; TAB(40); IEQ3;
  PRINT #4, TAB(50); IEQ4; TAB(60); IE
  PRINT #4, "DEPRECIATION"; TAB(20); d; TAB(30); d;
TAB(40); d; TAB(50); d;
  PRINT #4, TAB(60); TD
  PRINT #4, "RENT"; TAB(20); R; TAB(30); R; TAB(40); R;
TAB(50); R;
  PRINT #4, TAB(60); TR
  PRINT #4, "OTHERS expenses"; TAB(20); oeQ1; TAB(30);
oeq2; TAB(40); oeq3;

```

```

PRINT #4, TAB(50); " "; TAB(60); 0
PRINT #4, TAB(20); "-----"; TAB(30); "-----";
TAB(40); "-----";
PRINT #4, TAB(50); "-----"; TAB(60); "-----"
PRINT #4, "TOTAL"; TAB(50); TOQ1; TAB(30); TOQ2; TAB(40);
TOQ3;
PRINT #4, TAB(50); TOQ4; TAB(60); TTO
PRINT #4, "LESS DEPRECIATION"; TAB(20); d; TAB(30); d;
TAB(40); d;
PRINT #4, TAB(50); d; TAB(60); TD
PRINT #4, TAB(20); "-----"; TAB(30); "-----";
TAB(40); "-----";
PRINT #4, TAB(50); "-----"; TAB(60); "-----"
PRINT #4, "NET OVERHEAD"; TAB(20); NOQ1; TAB(30); NOQ2;
TAB(40); NOQ3;
PRINT #4, TAB(50); NOQ4; TAB(60); TNO
PRINT #4, TAB(20); "====="; TAB(30); "=====";
TAB(40); "=====";
PRINT #4, TAB(50); "====="; TAB(60); "=====";

```

END SUB

```

SUB jcpURCHASES
SHARED namel$, us, cpu, ucs
DIM pm(12), csl(12), cs(12)
CLS
66 INPUT "ENTER cost of materials sold in DECEMBER OF PREVIOUS
YEAR"; z
INPUT "ENTER cost of CLS FOR DECEMBER OF PREVIOUS YEAR";
csd
INPUT "enter cost of opening stock for december of previous
year"; osd
CLOSE : OPEN namel$ FOR OUTPUT AS #2
INPUT "are your entries correct (y/n)"; resp$
IF resp$ = "n" THEN
GOTO 66
ELSE
CLS
END IF
FOR i = 1 TO 12
csl(i) = us(i) * cpu
cs(i) = ucs(i) * cpu
NEXT i
tpOD = (z + csd) - osd: TPM1 = (csl(1) + cs(1)) - csd
TPM2 = (csl(2) + cs(2)) - (csl(1) + cs(1)): TPM3 = (csl(3) + cs(3)) -
cs(2)

```

```

TPM4 = (csl(4) + cs(4)) - cs(3): TPM5 = (csl(5) + cs(5)) -
cs(4)
TPM6 = (csl(6) + cs(6)) - cs(5): TPM7 = (csl(7) + cs(7)) -
cs(6)
TPM8 = (csl(8) + cs(8)) - cs(7): TPM9 = (csl(9) + cs(9)) -
cs(8)
TPM10 = (csl(10) + cs(10)) - cs(9): TPM11 = (csl(11) + cs(11))
- cs(10)
TPM12 = (csl(12) + cs(12)) - cs(11)
pod = sd + csd
FOR i = 1 TO 12
pm(i) = csl(i) + cs(i)
NEXT i
PQ1 = tpOD + TPM1 + TPM2: PQ2 = TPM3 + TPM4 + TPM5
PQ3 = TPM6 + TPM7 + TPM8: pq4 = TPM9 + TPM10 + TPM11
tpQ1 = TPM1 + TPM2 + TPM3: tpQ2 = TPM4 + TPM5 + TPM6
tpQ3 = TPM6 + TPM7 + TPM8 + TPM9: tpq4 = TPM10 + TPM11 + TPM12
CLS
PRINT #2, TAB(20); "PURCHASES BUDGET"
PRINT #2, TAB(30); "-----"
PRINT #2, TAB(27); "JANUARY TO DECEMBER 19.."
PRINT #2, TAB(27); "-----"
PRINT #2, TAB(16); "DECEMBER"; TAB(25); "JANUARY"; TAB(34);
"FEbruary";
PRINT #2, TAB(43); "MARCH"; TAB(52); "APRIL"; TAB(61); "MAY";
TAB(70); "JUNE"
PRINT #2, TAB(17); "#"; TAB(25); "#"; TAB(34); "#"; TAB(43);
PRINT #2, "#"; TAB(52); "#"; TAB(61); "#"; TAB(70); "#"
PRINT #2, "BUDGETED SALES"; TAB(16); z; TAB(25); csl(1);
TAB(34);
PRINT #2, csl(2); TAB(43); csl(3); TAB(52); csl(4); TAB(61);
csl(5); TAB(70); csl(6)
PRINT #2, "ADD CL.STOCK"; TAB(16); csd; TAB(25); cs(1);
TAB(34);
PRINT #2, cs(2); TAB(43); cs(3); TAB(52); cs(4); TAB(61);
cs(5); TAB(70); cs(6)
PRINT #2, TAB(16); "-----"; TAB(25); "-----"; TAB(34);
"-----"; TAB(43);
PRINT #2, "-----"; TAB(52); "-----"; TAB(61);
"-----"; TAB(70); "-----"
PRINT #2, TAB(16); pod; TAB(25); pm(1); TAB(34); pm(2);
TAB(43);
PRINT #2, pm(3); TAB(52); pm(4); TAB(61); pm(5); TAB(70);
pm(6)
PRINT #2, "LESS OP.STOCK"; TAB(16); osd; TAB(25); csd;
TAB(34);

```

```

PRINT #2, cs(1); TAB(43); cs(2); TAB(52); cs(3); TAB(61);
cs(4); TAB(70); cs(5)
PRINT #2, TAB(16); "-----"; TAB(25); "-----"; TAB(34);
"-----"; TAB(43);
PRINT #2, "-----"; TAB(52); "-----"; TAB(61);
"-----"; TAB(70); "-----"
PRINT #2, "TOTAL PURCH."; TAB(16); tpOD; TAB(25); TPM1;
TAB(34);
PRINT #2, TPM2; TAB(43); TPM3; TAB(52); TPM4; TAB(61); TPM5;
TPM6
PRINT #2, TAB(16); "====="; TAB(25); "====="; TAB(34);
"====="; TAB(43);
PRINT #2, "====="; TAB(52); "====="; TAB(61);
"====="; TAB(70); "====="
PRINT #2, TAB(16); "JULY"; TAB(25); "AUGUST"; TAB(34); "SEPT";
TAB(43); "OCTOBER";
PRINT #2, TAB(52); " NOVEMBER "; TAB(62); "DECEMBER";
PRINT #2, TAB(16); "#"; TAB(25); "#"; TAB(34); "#"; TAB(43);
PRINT #2, "#"; TAB(53); "#"; TAB(62); "#"
PRINT #2, "BUDGETED SALES"; TAB(16); csl(7); TAB(25); csl(8);
TAB(34);
PRINT #2, csl(9); TAB(43); csl(10); TAB(52); csl(11); TAB(61);
csl(12)
PRINT #2, "ADD CL.STOCK"; TAB(16); cs(7); TAB(25); cs(8);
TAB(34);
PRINT #2, cs(9); TAB(43); cs(10); TAB(52); cs(11); TAB(61);
cs(12)
PRINT #2, TAB(16); "-----"; TAB(25); "-----"; TAB(34);
"-----"; TAB(43);
PRINT #2, "-----"; TAB(52); "-----"; TAB(61);
"-----"
PRINT #2, TAB(16); pm(7); TAB(25); pm(8); TAB(34); pm(9);
TAB(43);
PRINT #2, pm(10); TAB(52); pm(11); TAB(61); pm(12)
PRINT #2, "LESS OP.STOCK"; TAB(16); cs(6); TAB(25); cs(7);
TAB(34);
PRINT #2, cs(8); TAB(43); cs(9); TAB(52); cs(10); TAB(61);
cs(11)
PRINT #2, TAB(16); "-----"; TAB(25); "-----"; TAB(34);
"-----"; TAB(43);
PRINT #2, "-----"; TAB(52); "-----"; TAB(61);
"-----"
PRINT #2, "TOTAL PURCH."; TAB(16); TPM7; TAB(25); TPM8;
TAB(34);
PRINT #2, TPM9; TAB(43); TPM10; TAB(52); TPM11; TAB(61); TPM12
PRINT #2, TAB(16); "====="; TAB(25); "====="; TAB(34);

```

```

"====="; TAB(43);
PRINT #2, "====="; TAB(52); "====="; TAB(61);
"====="
PRINT
PRINT

PRINT #2, TAB(30); "SHEDULE OF QUARTERLY PURCHASES"
PRINT #2, TAB(30); "FOR THE YEAR ENDED 31ST DEC. 19.."
PRINT #2, "MONTH"; TAB(10); "QUATER 1", TAB(20); "MONTH";
TAB(30); "QUATER 2"; TAB(40);
PRINT #2, "MONTH"; TAB(50); "QUATER 3"; TAB(60); TAB(70);
"QUATER 4"
PRINT #2, "JAN"; TAB(10); TPM1; TAB(20); "APR"; TAB(30); TPM4;
TAB(40);
PRINT #2, "JULY"; TAB(50); TPM7; TAB(60); "OCT"; TAB(70);
TPM10
PRINT #2, "FEB"; TAB(10); TPM2; TAB(20); "MAY"; TAB(30); TPM5;
TAB(40);
PRINT #2, "AUG"; TAB(50); TPM8; TAB(60); "NOV"; TAB(70); TPM11
PRINT #2, "MAR"; TAB(10); TPM3; TAB(20); "JUNE"; TAB(30);
TPM6; TAB(40);
PRINT #2, "SEPT"; TAB(50); TPM9; TAB(60); "DEC"; TAB(70);
TPM12
PRINT #2, TAB(10); "-----"; TAB(30); "-----"; TAB(50);
"-----"; TAB(70); "-----"
PRINT #2, TAB(10); tPQ1; TAB(30); tPQ2; TAB(50); tPQ3;
TAB(70); tpq4
PRINT #2, TAB(10); "====="; TAB(30); "====="; TAB(50);
"====="; TAB(70); "====="
PRINT
PRINT

PRINT #2, TAB(25); "SHEDULE OF PAYMENT OF CREDIT PURCHASES"
PRINT #2, TAB(25); "-----"
PRINT #2, TAB(28); "FOR THE YEAR ENDED 31ST DEC. 19.."
PRINT #2, TAB(28); "-----"
PRINT #2, "MONTH"; TAB(10); "QUATER 1"; TAB(20); "MONTH";
TAB(30); "QUATER 2"; TAB(40);
PRINT #2, "MONTH"; TAB(50); "QUATER 3"; TAB(60); TAB(70);
"QUATER 4"
PRINT #2, "DEC"; TAB(10); tpOD; TAB(20); "MAR"; TAB(30); TPM3;
TAB(40);
PRINT #2, "JUNE"; TAB(50); TPM6; TAB(60); "SEPT"; TAB(70);
TPM9
PRINT #2, "JAN"; TAB(10); TPM1; TAB(20); "APR"; TAB(30); TPM4;
TAB(40);

```

```

PRINT #2, "JULY"; TAB(50); TPM7; TAB(60); "OCT"; TAB(70);
TPM10
PRINT #2, "FEB"; TAB(10); TPM2; TAB(20); "MAY"; TAB(30); TPM5;
TAB(40);
PRINT #2, "AUG"; TAB(50); TPM8; TAB(60); "NOV"; TAB(70); TPM11
PRINT #2, TAB(10); "-----"; TAB(30); "-----"; TAB(50);
"-----"; TAB(70); "-----"
PRINT #2, "PAYMENT"; TAB(10); PQ1; TAB(30); PQ2; TAB(50); PQ3;
TAB(70); pq4
PRINT #2, TAB(10); "====="; TAB(30); "====="; TAB(50);
"====="; TAB(70); "====="

```

```
END SUB
```

```
SUB jcsales
```

```
  SHARED namel$, cs, SL, us, usl, ucs
```

```
  COLOR 5, 10
```

```
  DIM A(12), b(12), c(12), tcm(10)
```

```
25 FOR i = 1 TO 12
```

```
  PRINT "enter units to be sold in month"; i; : INPUT us(i)
```

```
  NEXT i
```

```
  PRINT "enter selling price per unit"; : INPUT SPU
```

```
  INPUT "enter sales for november of previous year"; p
```

```
  INPUT "enter sales for december of previous year"; k
```

```
  INPUT "ARE YOUR ENTRIES CORRECT (Y/N)"; resp$
```

```
  IF resp$ = "N" OR resp$ = "n" THEN
```

```
    GOTO 25
```

```
  ELSE
```

```
FOR i = 1 TO 12
```

```
SL(i) = us(i) * SPU
```

```
NEXT i
```

```
k1 = .6 * k: k2 = .3 * k: k3 = .09 * k
```

```
p1 = .6 * p: p2 = .3 * p: p3 = .09 * p
```

```
CLOSE : OPEN namel$ FOR OUTPUT AS #1
```

```
CLS
```

```
FOR i = 1 TO 12
```

```
A(i) = .6 * SL(i): b(i) = .3 * SL(i): c(i) = .09 * SL(i)
```

```
NEXT i
```

```
FOR i = 1 TO 10
```

```
tcm(i) = c(i) + b(i + 1) + A(i + 2)
```

```
NEXT i
```

```
TCMJ = p3 + k2 + A(1): TCMF = k3 + A(2) + b(1)
```

```
TCQ1 = TCMJ + TCMF + tcm(1): TCQ2 = tcm(2) + tcm(3) + tcm(4)
```

```
TCQ3 = tcm(5) + tcm(6) + tcm(7): TCQ4 = tcm(8) + tcm(9) +
```

```
tcm(10)
```

```
TTCQ = TCQ1 + TCQ2 + TCQ3 + TCQ4
```

```

CLS
PRINT #1, TAB(20); "SCHEDULE OF PAYMENT ON ACCOUNTS
RECEIVABLE"
PRINT #1, TAB(20);
"-----"
PRINT #1, TAB(30); "JANUARY TO DECEMBER 19.."
PRINT #1, TAB(30); "-----"
PRINT : PRINT
PRINT #1, TAB(31); "CASH RECEIVED IN"
PRINT #1, TAB(31); "-----"
PRINT #1, "FROM SALE"; TAB(15); "JAN"; TAB(25); "FEB";
TAB(35); "MAR";
PRINT #1, TAB(45); "APR"; TAB(55); "MAY"; TAB(65); "JUN"
PRINT #1, "IN"; TAB(16); "#"; TAB(26); "#"; TAB(36); "#";
TAB(46);
PRINT #1, "#"; TAB(56); "#"; TAB(66); "#"
PRINT #1, "NOVEMBER"; TAB(15); p3
PRINT #1, "DECEMBER"; TAB(15); k2; TAB(25); k3
PRINT #1, "JANUARY"; TAB(15); A(1); TAB(25); b(1); TAB(35);
c(1)
PRINT #1, "FEBRUARY"; TAB(25); A(2); TAB(35); b(2); TAB(45);
c(2)
PRINT #1, "MARCH"; TAB(35); A(3); TAB(45); b(3); TAB(55); c(3)
PRINT #1, "APRIL"; TAB(45); A(4); TAB(55); b(4); TAB(65); c(4)
PRINT #1, "MAY"; TAB(55); A(5); TAB(65); b(5)
PRINT #1, "JUNE"; TAB(65); A(6)
PRINT #1, TAB(15);
"-----"
-----"
PRINT #1, "TOTAL"; TAB(15); TCMJ; TAB(25); TCMF; TAB(35);
tcm(1);
PRINT #1, TAB(45); tcm(2); TAB(55); tcm(3); TAB(65); tcm(4)
PRINT #1, TAB(15);
"=====
===="
PRINT #1,
PRINT #1,
PRINT #1, TAB(15); "JUL"; TAB(25); "AUG"; TAB(35); "SEPT";
TAB(45);
PRINT #1, "OCT"; TAB(55); "NOV"; TAB(65); "DEC"
PRINT #1, TAB(16); "#"; TAB(26); "#"; TAB(36); "#"; TAB(46);
PRINT #1, "#"; TAB(56); "#"; TAB(66); "#"
PRINT #1, "MAY"; TAB(15); c(5)
PRINT #1, "JUNE"; TAB(15); b(6); TAB(25); c(6)
PRINT #1, "JULY"; TAB(15); A(7); TAB(25); b(7); TAB(35); c(7)
PRINT #1, "AUGUST"; TAB(25); A(8); TAB(35); b(8); TAB(45);

```

```

c(8)
PRINT #1, "SEPTEMBER"; TAB(35); A(9); TAB(45); b(9); TAB(55);
c(9)
PRINT #1, "OCTOBER"; TAB(45); A(10); TAB(55); b(10); TAB(65);
c(10)
PRINT #1, "NOVEMBER"; TAB(55); A(11); TAB(65); b(11)
PRINT #1, "DECEMBER"; TAB(65); A(12)
PRINT #1, TAB(15);
"-----"
PRINT #1, "TOTAL"; TAB(15); tcm(5); TAB(25); tcm(6); TAB(35);
tcm(7);
PRINT #1, TAB(45); tcm(8); TAB(55); tcm(9); TAB(65); tcm(10)
PRINT #1, TAB(15);
"=====
PRINT
PRINT
PRINT #1, TAB(10); "QUATER 1", TAB(30); "QUATER 2"; TAB(50);
"QUATER 3"; TAB(70); "QUATER 4"
PRINT #1, "JAN"; TAB(10); TCMJ; TAB(20); "APR"; TAB(30);
tcm(2); TAB(40);
PRINT #1, "JULY"; TAB(50); tcm(5); TAB(60); "OCT"; TAB(70);
tcm(8)
PRINT #1, "FEB"; TAB(10); TCMF; TAB(20); "MAY"; TAB(30);
tcm(3); TAB(40);
PRINT #1, "AUG"; TAB(50); tcm(6); TAB(60); "NOV"; TAB(70);
tcm(9)
PRINT #1, "MAR"; TAB(10); tcm(1); TAB(20); "JUNE"; TAB(30);
tcm(4); TAB(40);
PRINT #1, "SEPT"; TAB(50); tcm(7); TAB(60); "DEC"; TAB(70);
tcm(10)
PRINT #1, TAB(10);
"-----
-----"
PRINT #1, TAB(10); TCQ1; TAB(30); TCQ2; TAB(50); TCQ3,
TAB(70); TCQ4
PRINT #1, TAB(10);
"=====
PRINT "please wait processing in progress"
FOR i = 1 TO 5000
NEXT i
END IF
END SUB

```

APPENDIX A

SCHEDULE FOR THE PAYMENT OF OVERHEAD  
EXPENSES FOR THE YEAR ENDED DEC.31 19..

	quater 1	quater 2	quater 3	quater 4	TOTAL
	#	#	#	#	#
HEAT	15384	9232	3080	12304	40000
LIGHT	6667.5	6250	5832.5	6250	25000
POWER	8379	8862	9096.5	8662.5	35000
INSURANCE	15000	15000	15000	15000	60000
SUPPLIES	10152.2	11909.4	12774.2	1164.2	46000
MAINTENANCE	11470	12945	13865	11620	50000
INDIRECT EXPENSES	11369.4	10873.8	9546.6	10210.2	42000
DEPRECIATION	25000	25000	25000	25000	100000
RENT	25000	25000	25000	25000	100000
OTHERS expenses	11500	13500	12000	13000	50000
TOTAL	139922.1	138572.2	131194.8	138210.9	547900
LESS DEPRECIATION	25000	25000	25000	25000	100000
NET OVERHEAD	114922.1	113572.2	106194.8	113210.9	447900

APPENDIX B

SCHEDULE OF PAYMENT ON ACCOUNTS RECEIVABLE  
JANUARY TO DECEMBER 19..

CASH RECEIVED IN

FROM SALE IN	JAN #	FEB #	MAR #	APR #	MAY #	JUN #
NOVEMBER	25200					
DECEMBER	75000	22500				
JANUARY	270000	135000	40500			
FEBRUARY		285000	142500	42750		
MARCH			300000	150000	45000	
APRIL				277500	138750	41625
MAY					292500	146250
JUNE						240000
TOTAL	<u>370200</u>	<u>442500</u>	<u>483000</u>	<u>470250</u>	<u>476250</u>	<u>427875</u>

	JUL #	AUG #	SEPT #	OCT #	NOV #	DEC #
MAY	43875					
JUNE	120000	36000				
JULY	258000	129000	38700			
AUGUST		276000	138000	41400		
SEPTEMBER			192000	96000	28800	
OCTOBER				268500	134250	40275
NOVEMBER					270000	135000
DECEMBER						277500
TOTAL	<u>421875</u>	<u>441000</u>	<u>368700</u>	<u>405900</u>	<u>433050</u>	<u>452775</u>

QUATER 1 #	QUATER 2 #	QUATER 3 #	QUATER 4 #
JAN 370200	APR 470250	JULY 421875	OCT 405900
FEB 442500	MAY 476250	AUG 441000	NOV 433050
MAR 483000	JUNE 427875	SEPT 368700	DEC 452775
<u>1295700</u>	<u>1374375</u>	<u>1231575</u>	<u>1291725</u>

APPENDIX E

LIST OF DATA USED

MONTH	1	2	3	4	5	6	7	8	9	10	11	12
COST/UNIT OF MATERIAL TO BE SOLD	18,000	19,000	20,000	18,500	19,500	16,000	17,200	18,400	12,800	17,900	18,000	18,500
UNIT OF EXPECTED CLOSING STOCK	2,000	2,100	3,000	2,500	1,850	2,800	2,300	2,400	2,600	1,950	2,000	3,200

COST OF MATERIAL SOLD IN DEC. OF PREVIOUS YEAR	#200,000
COST OF CLOSING STOCK FOR DEC. OF PREVIOUS YEAR	50,000
COST OF OPENING STOCK FOR DEC. OF PREVIOUS YEAR	80,000
COST PER UNIT OF MATERIAL SOLD	18
SALING PRICE PER UNIT	25
SALES FOR NOV. OF PREVIOUS YEAR	280,000
SALES FOR DEC. OF PREVIOUS YEAR	250,000

HEAT	LIGHT	POWER	SUPPLIES	INSURANCE	MAITENANCE	INDIRECT EXP.	RENT	OTHER EXP.	DEPRECIATION
40,000	25,000	35,000	46,000	15,000	50,000	42,000	25,000	50,000	25,000

	QURT1	QURT2	QURT3	QURT4
PERCENTAGE OF OTHER EXPENCES	23	27	24	26
AMOUNT REALISABLE FROM SALE OF FIXED ASSETS	10,000	-	25,000	15,000
INTEREST RECIEVABLE	10,000	15,000	20,000	25,000
OTHER INCOME	12,000	13,000	14,000	15,000

FIXED EXPENCES	#100,000
ANNUAL PROPERTY TAX	50,000
CASH DIVIDEND PAYABLE	80,000
EQUIPMENT REPLACEMENT COST	45,000
ADVERTISEMENT	40,000
AMOUNT OF BANK LOAN PAYABLE IN EACH MONTH	15,000
CASH BALANCE OF DEC. OF PREVIOUS YEAR	250,000
DIVIDEND RECIEVABLE	50,000

payment cheque. An analysis of the monthly billing is usually adopted. This exercise shows total sales for each month and the percentage of this figure that is collected during that month and succeeding months. These figures are expressed as percentages of the months total sales.

In Greece Industries Limited, the case is not quite different, based on its wealth of experience and years of operation, it has been able to establish a sales collection schedule which it has been using over the past seven years. The company does not allow discounts but regards 1% of the total sales of each month as doubtful debts. Its market is not evenly spread over the year but the monthly collection schedule expressed as a percentages of sales is

During month of sale	60%
In first subsequent month	30%
In second subsequent month	9%
Bad Debts (uncollected)	1%

this means that for instance, if the estimated sales in January, February and March are N360,000, N420,000.00 and N600000 respectively. The forecast of sales collection for the month of March will be

9% of the sales in January =

$$\frac{9}{100} \times 360,000 = 32400$$

30% of the sales in February =

$$\frac{30}{100} \times 420,000 = 126,000$$

60% of the sales in March =

$$\frac{60}{100} \times 600,000 = 360,000$$

$$\text{Total collection} = \text{N}518400$$

The illustration shows that the sum of N518400 will be transferred to the cash budget as credit sales collectable in the month of March. This is how it will be done for the rest of the months in the year.

It can be observed that the above task is not an easy one and a mistake in using the wrong percentage or amount for a different month may deceive the entire organisation because decision will be taken using a wrong information.

#### 2.4. ESTIMATE RECEIPTS FROM OTHER SOURCES.

The estimate of receipts from other sources does not impose much problem except for the forecast of dividend on shares held in other companies whose date and rate of payment cannot be easily predictable, all others can be estimated relatively easily.

It will be wise to state here other sources of income of the company it includes

- Bank interest
- Interest from money market investments
- Sales of fixed assets
- Receipt of rent receivable.

The bank interest is very easy to determine, as the terms can be easily obtained from the banks. Some banks pay on monthly basis while others pay on quarterly yearly or half yearly basis as the case may be. The forecast of interest from money market instruments is also quite easy as they have due dates which can be easily estimated depending on the investment programme.

Estimating receipts from the sale of fixed assets will depend on the timing of sales. This can be obtained from the department responsible for the asset. Where the sale of a building or