COMPUTER STUDIES

PRACTICAL WORKBOOK FOR STUDENTS

BOOK 1

Angoda Emmanuel

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

- WORD PROCESSING
- SPREADSHEETS
- DATABASES
- PRESENTATION
- DESKTOP PUBLICATION

.....

.....

LIRA TOWN COLLEGE
DEPARTMENT OF ICT

PREFACE



Angoda Emmanuel is a distinguished technology leader and educationist. He has been active in education & technology circles in Uganda in the last 5 years. He has been teaching Computer Studies and Subsidiary ICT at Lira Town College since 2012. Emmanuel is a renown Subject Consultant and Examiner in northern Uganda.

He has supported the proliferation of e-content and e-learning in many secondary schools and educational organizations like KAWA, Edmodo and Mwalimu Online Learning Tool among others.

He has won many awards for his contributions to education and ICT sector in Uganda. Over the years, he has engaged his students in many technology events and competitions like Annual Communications Innovations Awards (ACIA), Science & Technology Innovations Challenge (Robotics), Africa Code Week and Technovation Challenge.

He has a passion for education, technology, justice and gender activism. His mission is to empower young people with the power of technology and science.

Angoda Emmanuel was educated at Fr. Hilders Primary School and Nakatunya Primary School (PLE), Ngora High School and Alwa Secondary School (O-level) and Dr. Obote College Boroboro (A-level). Thereafter, he pursued Bachelor of Information & Communications Technology at Gulu University from 2009 to 2012.

This book, ***Computer Studies Practical Workbook for Students*** is intended to meet the needs of secondary school students offering Computer Studies/ICT as they prepare for Uganda Certificate of Education (UCE) or Uganda Advanced Certificate of Education (UACE). It fully covers S.3, S.4, S.5 and S.6 practical requirements. This book is composed of 5 chapters, and each chapter contains 10 Practical Test Papers.

This book offers students a comprehensive test of computing skills and abilities, but are encouraged to seek guidance from teachers where necessary.

Contacts:

Address: Lira Town College, P.O. Box 125 Lira - Uganda
Mobile number: 0783 125905
Email: angodaemmanuel@gmail.com
Blog: www.angodaemma.wordpress.com
Facebook: www.facebook.com/angodaemmanuel
Twitter: @angodaemmanuel
LinkedIn: https://ug.linkedin.com/in/angoda-emmanuel-b2b7846a
Website: www.walktrackuganda.com

CONTENTS

PREFACE 2
CONTENTS 3
CHAPTER ONE 5
ELECTRONIC WORD PROCESSING 5
TEST PAPER 1: 5
TEST PAPER 2: 5
TEST PAPER 3: 6
TEST PAPER 4: 7
TEST PAPER 5 9
TEST PAPER 6 10
TEST PAPER 7 12
TEST PAPER 8 13
TEST PAPER 9 13
TEST PAPER 10 14
CHAPTER TWO 16
ELECTRONIC SPREADSHEETS 16
TEST PAPER 1 16
TEST PAPER 2 17
TEST PAPER 3 17
TEST PAPER 4 18
TEST PAPER 5 20
TEST PAPER 6 21
TEST PAPER 7 22
TEST PAPER 8 23
TEST PAPER 9 24
TEST PAPER 10 25
CHAPTER TWO 27
ELECTRONIC DATABASES 27
TEST PAPER 1 27
TEST PAPER 2 28
TEST PAPER 3 29
TEST PAPER 4 30
TEST PAPER 5 32
TEST PAPER 6 33
TEST PAPER 7 35
TEST PAPER 8 36
CHAPTER ONE 37

ELECTRONIC PRESENTATION 37
TEST PAPER 1 37
TEST PAPER 2 38
TEST PAPER 3 40
TEST PAPER 4 40
CHAPTER ONE 42
ELECTRONIC PUBLICATIONS 42
TEST PAPER 1 42
TEST PAPER 2 42
TEST PAPER 3 43
TEST PAPER 4 43
TEST PAPER 5 44

CHAPTER ONE
ELECTRONIC WORD PROCESSING

TEST PAPER 1:

Using any word processor of your choice, type the following text and perform tasks listed below it:

WORD PROCESSING COMPARED TO USING A TYPEWRITER

The great advantage of word processing over using a typewriter is that you can make changes without retyping the entire document. If you make a typing mistake, you simply back up the cursor and correct your mistake. If you want to delete a paragraph, you simply remove it, without leaving a trace. It is equally easy to insert a word, sentence, or paragraph in the middle of a document. Word processors also make it easy to move sections of text from one place to another within a document, or between documents. When you have made all the changes you want, you can send the file to a printer to get a hard copy.

Tasks:

i) Change the font size of the whole document to 16.
ii) Change the font size of the title to 20.
iii) Change the font type of the whole document to Bookman Old Style.
iv) Change the alignment of the document to right alignment.
v) Underline the title of document.
vi) Save your document as word processing.

TEST PAPER 2:

Use a Word processor of your choice to type the document below as it is: (USE FONT = Courier New, Size =13)

The term **computer hardware** refers to the physical components of a computer, namely Keyboard, Monitor, Mouse, and Printer, including the digital circuitry. Computer hardware is an integral part embedded in all modern day automobiles, microwave ovens, electrocardiograph machines, compact disc players, and other devices. The hardware of a computer is not changed frequently, in contrast with software and data. The present computers are much advanced in terms of processing speed and have an efficient memory structure.

Course №	Course Name	Time Needed	Period of Schedule	Tuition Payable
1	Introduction to Computer hardware	2 weeks	15th Jan to 30th Jan	£25,000
2	Input hardware	1 month	February	£35,000
3.	Processing hardware	3 weeks	1st March to 20th March	£30,000
MID TERM EXAMINATION				
4.	Storage hardware	1 month	April	£35,000
5.	Output hardware	1 month	May	£25,000
END OF TERM EXAMINATION				

REQUIRED:

i. All text is justified
ii. Set all margins to 0.6 inches
iii. Center the table but not its content
iv. Copy the table to page 2 of your document.
v. Add your name as footer on all pages.
vi. Save your document as "Computer HARDWARE Course Outline"
vii. Print your document.

TEST PAPER 3:

Use a word processor of your choice to type the document below as it is: (USE FONT = Courier New, Size =13)

The term **computer hw** refers to the physical components of a computer, namely Keyboard, Monitor, Mouse, and Printer, including the digital circuitry. Computer hw is an integral part embedded in all modern day automobiles, microwave ovens, electrocardiograph machines, compact disc players, and other devices. The hw of a computer is not changed frequently, in contrast with software and data. The present computers are much advanced in terms of processing speed and have an efficient memory structure. The present course aims at providing an insight into the various hw concepts of a Computer System.

Course Nº	Course Name	Time Needed	Period of Schedule	Tuition Payable
1	Introduction to Computer hw	2 weeks	15th Jan to 30th Jan	£25,000
2	Input hw	1 month	February	£35,000
3.	Processing hw	3 weeks	1st March to 20th March	£30,000
MID TERM EXAMINATION				
4.	Storage hw	1 month	April	£35,000
5.	Output hw	1 month	May	£25,000
END OF TERM EXAMINATION				

FURTHER REQUIRED:

a) Substitute all the occurrences of the word "hw" by the word "Hardware".
b) All text is justified
c) Set all margins to 0.6 inches
d) Center the table but not its content
e) Copy the table to page 5 of your document and convert it to text
f) Add your name as footer on all pages except the first page.
g) Save your document as "Computer HW Course Outline"
h) Print page 1 and 5 on one sheet of paper back to back.

TEST PAPER 4:

Create the document below exactly as it appears using a word processor and save it as **ECONTENT**.

E-CONTENT DEVELOPMENT
FOR KENYAN SECONDARY LEVEL CURRICULUM

Introduction

The acronym e-content stands for electronic content. In e-content, teaching and learning materials are presented in digital form and made available on:

- Compact disks (CDs)
- Digital versatile disks (DVDs)
- Internet

Today, devices such as computers, cellular phones and personal digital assistants have been enhanced in order to deliver e-content.

Benefits of e-content

The purpose of e-content is to reinforce e-learning through establishment of on-line digital libraries.

The table below gives a summary of some of the benefits of e-content.

BENEFITS	EXPLANATION
1. Learner motivation	Moore motivation and attractive to the learner hence easily acceptable.
2. Advanced security	In disseminating information, there is controlled access to documents on the basis of a rigorous authentication system.
3. Increased flexibility	Business processes and integrated communication regardless of the distance between users and means of access to information.
4. Increased performance and revenue	By taking advantage of the emerging trends.
5. Cost reduction	Reduced cost of carrying business processes compared to the print media.

Requirements for e-content development are:

1. Subject experts for content organisation and development.
2. Multimedia computer especially IBM or IBM compatible computers.
3. Optical disks (CDs or DVDs)
4. Software- Macromedia Dreamweaver and Flash.
5. Qualified e-content developers.

Threats and Security to copyright

There is a need to explore on how to safeguard intellectual property rights as well as the company's market share from cheap pirated or free access to teaching/learning materials.

Required:

a) Check for any errors in the document. ***(2 marks)***
b) Set the document margins to: ***(4 marks)***
   i. The right and left margins to 1"
   ii. The top and bottom margins to 0.5".
c) Replace all the instances of the word "e-content" with the word "digital content". ***(2 marks)***
d) Insert page numbers at the bottom right of the document. ***(2 marks)***
e) Save the entire document as **ECONTENT**.
f) The principal of the Digital Valley School wishes to invite five participants to a discussion forum on e-content development. Using ECONTENT as the main document, create personalized letters addressed to five people of your choice. See the format below.

Mail merge the five letters to a new document and save as NEWMERGED.

g) Print **ECONTENT** and **NEWMERGED**.

DIGITAL VALLEY SCHOOL
P.O. 880, Bahati, Kenya

Date: ……

<First Name> <Last Name>
<CompanyName>
<Postal Address>
<Town>
RE: E-CONTENT DEVELOPMENT
Insert the main document here

Insert: Your Name

TEST PAPER 5:

Using a word processor of your choice, create the document below and save it as **CreateTables**. ***(25 marks)***

CREATE TABLES

A table is made up of rows and columns of cells. It is used to organize and present information. Most word processors let the user easily create, edit and format a table.

To create a table:

1. Click where you want to insert the table.
2. From the **Table** menu, point to **Insert**, and then click **Table**.
3. In the Insert table dialog box, set the number of rows and columns.
4. Specify the auto format option if need be.

It is possible to calculate numerical values in a table. The columns are referenced as A, B, C,… while rows are referenced as 1, 2, 3.

BROUKESHIRE DAIRIES LTD.					
JANUARY 2007 PAYROLL					
Employee No.	**Name**	**Salary (Ksh.)**	**Medical Allow.**	**Travel Allow.**	**Gross Pay**
11801	James Meli	44000	8900	2000	
11802	Joan Kaparo	38000	8000	1800	
11803	Peter Kamande	59000	5000	1600	
11804	Hasan Noor	14000	3000	1000	
11805	Nancy Atieno	18000	4000	1200	
11806	Patrick Kimeu	34000	1800	1700	
11807	Job Omingo	16000	3500	1100	

Required:

a) Format the document title to Tahoma font 16 pts, underline, bold and centre aligned. ***(2 marks)***

b) Make the table title and subtitle centred across columns, 16pts and 14 pts respectively. ***(2 marks)***

c) Using appropriate functions:
   i. Calculate each employee's gross pay. ***(5 marks)***
   ii. Calculate each column total. ***(3 marks)***
   iii. Determine the minimum pay in each category. ***(3 marks)***

d) Using Microsoft graph object, generate a bar graph with the employee's names against the Gross pay. ***(10 marks)***

e) Save the document.

f) Print out your work.

TEST PAPER 6:

a) Create the form letter shown below and save it as FORMLETTER. ***(8 marks)***

Kenya Planters Associations Ltd
P.O. Box 9009 00100
Mombasa (Kenya)

<First Name><Second Name>
<Address>
<City>

Dear <First Name>

REF: ANNUAL GENERAL MEETING

We wish to invite you for our annual general meeting which will be held on <Date> of <Month> 2007 at <Time>A.M. The venue will be at <Venue>.

The agenda for the meeting will be as follows:

- Elections
- Financial Reports
- Dividends
- AOB.

Please, make sure you carry your membership care without which you will not be allowed entry at the gate.

Yours truly
MD-KPA

Required:

b) i. Align the address at the top right to be at the top left. Similarly do the same for the last two lines of the letter.
ii.. Bold and underline the line starting with REF. ***(4 marks)***
iii.. Replace the bullets with numbers 1, 2, …, 4. ***(4 marks)***

c) i. Create a data source that has the following structure and save it as DATASOURCE. ***(8 marks)***

First Name	Second Name	Address	City	Date	Month	Time	Venue
Joseph	Scot	P.O. Box 20	Nairobi	20	August	10	Town hall
Teresa	Wanja	P.O. Box 27	Kisumu	20	August	10	Town hall
Mark	Meza	P.O. Box 69	Mombasa	20	August	10	Town hall
Musa	Mako	P.O. Box 10	Nairobi	20	August	10	Town hall
Masese	Milka	P.O. Box 44	Nairobi	20	August	10	Town hall
Nyang	Osborn	P.O. Box 66	Nairobi	20	August	10	Town hall

d) Insert the merge fields in the FORMLETTER to replace the text marked with the <> signs. (9 marks)
e) Merge the FORMLETTER and the DATASOURCE to a new document and save it as MERGED LETTER. (5 marks)
f) Print FORMLETTER, DATASOURCE and MERGEDLETTER.

TEST PAPER 7:

The text below is a story extracted from one of the daily newspapers.

Diana the Princes of Wales was born in 1961. Her dad was Francis Spencer who hailed from Norfolk, England. As a child, she was educated at Riddlesworth Hall in Norfolk, and West Heath School in Kent. She worked as a kindergarten teacher in London. She married Prince Charles, the heir to the British throne on July 29, 1981. On June 21st, 1982, Prince William Arthur Phillip Louis was born. His brother Prince Henry Charles Albert David was born on 15th September, 1984. However, there were many strains in the marriage of Prince Charles and Diana, most of them being fuelled by the negative issues publicized by paparazi journalists.

Irregardless of all the negative publicity, Prince Diana won the hearts of many Britons because of her charity work, which she had taken as a royal duty. She gave active support to many charities related to homeless and deprived children, drug abuse and victims of acquired immune deficiency syndrome (AIDS). Diana made headlines across the globe when she shook hands of an AIDS patient.

Diana died in a road accident that remain controversial to date. They had gone out with her new lover Dodi Al Fayez. As they tried to run away from a group of paparazzi, their car rammed into the pillar of a flyover, killing them instantly.

Required:

a) Create a document with the above text and save it as DIANA. ***(8 marks)***
b) Type the following heading for the document above the text, bolded, centred and underlined.
   DIANA PRINCESS OF WALES
c) Format the text to be of font size 10. ***(2 marks)***
d) Without affecting the heading, re-format the text to be in two columns. ***(4 marks)***
e) Insert your name and index number as a footer aligned to the left in the document. ***(4 marks)***
f) Insert a picture of Princess.jpg from the support files provided, at the top of the first column.
g) Insert the first line of each paragraph by 1cm. ***(6 marks)***
h) Change the page orientation to landscape. ***(2 marks)***
i) Specify the following settings for the paper size and margins:
   Paper size: A4; Left margin: 2 cm
   Top, Right and Bottom margins: 1 cm each. ***(6 marks)***
j) Change the font type to TAHOMA. ***(2 marks)***
k) Check for spelling mistakes and replace all the words that the spelling checker prompts as mispelled with a sugguested word. Save the entire document.
l) Print the document DIANA.

TEST PAPER 8:

*In this activity, you are required to edit a document titled "**The Life of Muhammed Ali**"*

i) Using a suitable software, open the file **Ali.RTF**. [2]

ii) Set the page size to A4. [1]

iii) Set the page orientation to landscape. [1]

iv) Set all margins to 1 inch. [1]

v) Change the font size of all the text to 12. [1]

vi) Place in the header your full name and index number, left aligned. [2]

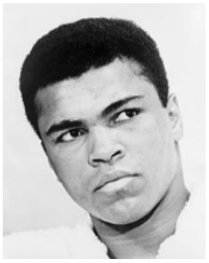
vii) Place in the footer today's date right aligned. [2]

viii) Set the line spacing of whole document to 1.5. [1]

ix) Create a blank line at the top of the document and insert the heading: [1]

MUHAMMED ALI – THE GREATEST

x) Format the picture at the top of the page to tight, to make it appear as below. [2]



Muhammad Ali (born **Cassius Marcellus Clay Jr.**; January 17, 1942 – June 3, 2016) was an American Olympic and professional boxer, widely regarded as one of the most significant and celebrated sports figures of the 20th century. From early in his career, Ali was known as an inspiring, controversial and polarizing figure both inside and outside the ring.

Clay was born in Louisville, Kentucky, and began training when he was 12 years old. At 22, he won the world heavyweight championship from Sonny Liston in an upset in 1964. Shortly after that, Clay converted to Islam, changed his "slave" name to Ali, and gave a message of racial pride for African Americans and resistance to white domination during the 1960s Civil Rights Movement.

In 1966, two years after winning the heavyweight title, Ali further antagonized the white establishment by refusing to be conscripted into the U.S. military, citing his religious beliefs and opposition to American involvement in the Vietnam War. He was eventually arrested, found guilty of draft evasion charges and stripped of his boxing titles. He successfully appealed in the U.S. Supreme Court, which overturned his conviction in 1971. By that time, he had not fought for nearly four years—losing a period of peak performance as an athlete. Ali's actions as a conscientious objector to the war made him an icon for the larger counterculture generation.

xi) Change the heading to font size 33. [1]

xii) Insert a text watermark across the page using the text: **THE GREATEST** [1]

xiii) Change the alignment of all the text to Justified. [1]

xiv) Change the magnification of the document to 120%. [1]

xv) Save your document as **Greatest.doc** [1]

xvi) Print out your work. [1]

TEST PAPER 9:

In this activity, you will edit a document about the development of a new port.

1. Using a suitable software package, load the file **JX1PORT21.RTF** [2]
2. Set the page size to A4. [1]

3. Set the page orientation to portrait. [1]
4. Set all margins to 2 centimetres. [1]
5. Save the document as **Port Pepard** in your work area. [2]
6. Place in the header your full name and index number left aligned. [1]
7. Place in the footer today's date right aligned. [1]

   Make sure that all the alignments match the page margins.

   Make sure that headers and footers are displayed on each page.
8. Insert a blank line at the start of the document and enter the title Dock facilities at Port Pepard. [1]
9. Set the title as Heading 1, center aligned and make the font size to 24. [2]
10. Below the title, add a subtitle: [1]

    Report by: and add your name.
11. Set the font size of the subtitle to a Bookman Old Style font. [1]
12. Make only the subtitle italic. [1]
13. After the subtitle, format the rest body text into two equally spaced columns, with a 1 centimeter gap. [1]
14. Set all the body text to Arial font, 1.5 line spacing. [1]
15. Set the font size of all the body text to 10point. [1]
16. Save your document as **Port Pepard**. [1]
17. Print out your work. [1]

TEST PAPER 10:

a) You are the secretary to the school's "Fund for Academic Excellence" program and you are required to send out acknowledge letters to people who have so far made contributions towards the program. The letter contents are the same for all the persons except the addresses, names and nature of contributions.

   Below is the letter to be sent and a table of people who have made contributions towards the program.

Lango College,
P.O. Box 86,
Lira

12th June, 2016

<ADDRESS>

Dear <NAME>

Thank you for your generous contribution of <NATURE OF CONTRIBUTION> towards the "Funds for Academic Excellence" program.

This project is in its inaugural year but it has been a resounding success. The leaners and staff agree that it should become an annual event.

The principal would like to thank you and hopes for more support in future.

Thank you very much.

.....

HEADTEACHER

OKELLO ALFRED OGWOK

#	NAME	ADDRESS	NATURE OF CONTRIBUTION
1	Lagayizi John	P.O. Box 54, Kamuli	$430
2	Enyaku David	P.O. Box 102 Katakwi	500,000
3	Nsibambi Eriya	P.O. Box 160, Masindi	20 kg of Maize
4	Nakasolya Juliet	P.O. Box 1413, Kampala	40 bags of Rice

b) Use an appropriate method in any word processing program to make a letter to be sent to each person in the table. The address and names should be bolded and the contributions in italics. ***(17 marks)***

c) Save your work as your Index Number. ***(1 mark)***

d) Print each of the four letters. ***(2 marks)***

CHAPTER TWO
ELECTRONIC SPREADSHEETS

TEST PAPER 1:

The table below shows examination results of Senior Six Subsidiary ICT students. Study it and answer the questions that follow:

STUDENT'S NAME	AGE	PAPER ONE	PAPER TWO	FINAL MARK
Nayiga Ruth	18	33	42	
Asiimwe Brenda	17	25	52	
Atyeno Grace	19	29	48	
Akiiki Lucy	18	33	56	

Required:

a) Enter the students' data in a spreadsheet program.
b) Determine the final mark for every student by use a formula.
c) Insert in the table the title "STUDENTS' PERFORMANCE".
d) Insert a footer as your name.
e) Plot a bar graph of the final mark against the STUDENT'S NAME.
f) Add a chart title as BAR GRAPH REPRESENTING STUDENT'S PERFORMANCE.
g) Copy your graph to another worksheet.
h) Rename sheet one as MARKS and sheet two as GRAPH.
i) Save your work as your name.
j) Print your work.

TEST PAPER 2:

Type the following table in MS excel and perform the tasks required below it.

SN	NAME	SST	ENG	MATH	SCI	TOTAL	POSITION
1	OKELLO MAX	26	23	23	45		
	ALWEDO CONNY	78	45	45	45		
	WAFRA GONZA	89	78	40	67		
	WAFULA MIKE	11	97	40	60		
	DIPIO EMMANUEL	45	43	56	62		
	IKE KIPROTICH	67	29	60	62		
	ALABA SIDDY	87	48	76	78		
	AVERAGE MARK						

Required:

1. Calculate the totals of the students above, using the SUM function.
2. Calculate the average subject mark using an appropriate function.
3. Using the rank function, determine the position of the students using their total marks. Guide: **=RANK(G2,$G$2:$G$8,1)**
4. Using the first Serial number, write a formula to determine the other serial numbers, by incrementing by 1.
5. Highlight all their work area and put all boarders as the one shown above.
6. Format your worksheet to landscape page orientation.
7. Change the view format from Normal to Page Break View.
8. Save your work as P7 Remedial Exams.

TEST PAPER 3:

Enter the data below in a Microsoft Excel Worksheet ***(5 Marks)***

(ii) Using the Information below, complete the table: ***(8 Marks)***

- Revenue from ***sales*** is expected to increase by 10% every month
- Revenue from ***Services*** and ***Others*** decreases by 2% every month
- ***Salaries*** and ***Wages*** increased by 50% only in February and stayed constant for March
- ***Purchases*** increased by 10% every month.

(iii) Calculate the ***Total Revenue*** and ***Expenditure*** for each month ***(3 Marks)***

(iv) Calculate the ***Overall*** **Revenue** *and* ***Overall Expenditure*** for this company ***(1 Mark)***

(v) Calculate the ***Profit*** earned for each month. ***(1.5 Marks)***

(vi) Calculate the ***Overall*** **Profit** earned by the company ***(0.5 Marks)***

(vii)Save your work on a diskette as "***My Accounts***" ***(1 Mark)***

INCOME AND EXPENDITURE ESTIMATE FOR THE YEAR 2001/02					
CODE	**ITEM**	**JANUARY**	**FEBRUARY**	**MARCH**	**TOTAL**
INCOME					
INC01	Sales	125000			
INC02	Services	50000			
INC03	Others	70000			
TOTAL					
EXPENDITURE					
EXP01	Salaries	50000			
EXP02	Wages	30000			
EXP03	Travel	10000	10000	10000	
EXP04	Purchase	60000			
TOTAL					
PROFIT					

TEST PAPER 4:

Jim Watson, owner of Hollybank farm, milks a herd of fifty dairy cows. The following table shows the number of gallons of milk produced on the farm each month over a four-year period:

HOLLYBANK FARM				
Month	1997	1998	1999	2000
January	502	440	661	552
February	1022	856	1015	1170
March	4316	3986	3884	4287
April	7627	6846	7946	7570
May	9728	9103	9726	10046

June	8423	8156	8509	9218
July	6848	6411	6592	7158
August	5868	5386	5591	4985
September	3382	2927	3002	2675
October	2181	1937	1886	1685
November	536	478	515	484
December	335	284	256	317

Enter this data onto a spreadsheet and save the file as **Dairyl,** then carry out the following tasks:

1. Add a row to show the total number of gallons produced each year
2. Add rows to show the average, maximum and minimum monthly yields for each year.
3. Insert a column, labelled *Price/Gallon,* after each year's data. The price per gallon of milk during 1997 and 1998 was £0.82, the price was increased in 1999 to £0.90 and increased again in 2000 to £0.95. Enter these details in the four unit price columns.
4. Insert a column, labelled *Total Price,* after each *Price/Gallon* column to show the total amount of money earned each month from milk sales.
5. Obtain the gross earnings for each year from milk sales.
6. Obtain the average annual earnings from milk production, for the period given, on Hollybank farm.
7. Format the relevant columns to currency format.
8. Save the spreadsheet as **Dairy2.**
9. Obtain a printout of **Dairy2.**

TEST PAPER 5:

Modern Technology Electronics Ltd deals with sales of three types of electronic goods namely television sets, radio systems and DVD players. Below is a table showing details of April 2007 sales.

Modern Technology Electronics Ltd. **Sales as per 30th April 2007**							
Category Code	**Type**	**Item Description**	**Unit Price**	**Sold**	**Sub-total**	**Tax**	**Net Amount**
TV001	TV	21" LG TV	16000	8			
TV003	TV	38" Samsung TV	60000	2			
RD001	Radio	JVC 3CD Changer	12000	12			
DV001	Radio	Philips DVD Player	5500	6			
TV004	TV	14" JVC TV	11000	22			
DV002	DVD	LG DVD Player	6200	18			
TV005	TV	21" Sony TV	15800	14			
DV003	DVD	Sony DVD Player	4500	20			
RD002	Radio	Panasonic Radio	3200	30			
RD003	Radio	Samsung Radio Player	4700	8			
TV007	TV	14" ZEC TV	8200	4			
DV001	Radio	Panasonic DVD Player	6500	16			
		Tax rates	TV	15%			
			DVD	12%			
			Radio	8%			

Required:

a) Enter the data in a worksheet and save it as **MODERNTEC**. ***(18 marks)***

b) Format the worksheet as follows:
   i. Centre the title across columns. ***(2 marks)***
   ii. The text should be Arial, 18 points, bold and centred within a box. ***(2 marks)***
   iii. Column headings to be wrapped within the cells and centred horizontally and vertically.
   iv. The unit price to be in two decimal places and currency prefix Ksh. ***(4 marks)***

c) Use appropriate cell references to calculate:
   i. The subtotal, rounded to two decimal places. ***(2 marks)***
   ii. The TAX is based on the type of the item. Use the rates given in the table above to calculate tax payable on each item sold. ***(2 marks)***
   iii. The Net Amount, which is the subtotal less tax. ***(2 marks)***

d) Sort the worksheet in ascending order according to category. ***(2 marks)***

e) Calculate the subtotals and grand total for the three types of electronic goods. ***(6 marks)***
f) On a separate worksheet, create a bar graph that compares sales for three types of electronic goods. Label it appropriately. ***(2 marks)***
g) Print the worksheet showing all formulae used instead of values and the graph.

TEST PAPER 6:

Jamii Retail Shop deals with sales of office furniture, stationery and computer accessories. The items shown in the table below were bought in the year 2004 and are due for disposal. Study the table and answer the questions that follow:

Jamii Retail Shop Inventor							
		Yr2004		**Depreciated cost per year**			
ItemID	**Description**	**Initital**	**Quantity**	**Amount**	**2005**	**2006**	**2007**
J001	Filing cabinets	15000	4				
J002	Computers	70000	10				
J007	Photocopiers	120000	2				
J009	Refrigerators	34000	6				
J012	Desks	6000	12				
J021	Plastic chairs	400	30				
J023	Fans	6000	5				
J030	TV sets	10000	8				
J032	Wardrobes	10000	3				
J033	Display cupboard	10000	4				

a) Create a workbook to store the information above and save it as JAMII_INVENTORY. ***(12 marks)***
b) Format the worksheet as follows:
   i. Merge and centre the cells in the heading.
c) Using appropriate cell references calculate:
   i. The initial amount for all items in the year 2004. ***(2 marks)***
   ii. Total expenditure in the year 2004. ***(2 marks)***
d) If the annual depreciation rate is 10%, calculate:
   i. The depreciated value of each item from year 2005 to 2007. ***(5 marks)***
   ii. The total amount expected from the sale of the items every year. ***(3 marks)***
e) Sort the worksheet in ascending order according to description. ***(2 marks)***
f) An interested buyer bids to buy all the equipment but pegs his/her depreciation rate at 12%. Calculate the loss Jamii Retail Shop makes it the deal is sealed in the year 2007. ***(6 marks)***
g) Save the worksheet as JAMII_FINAL. ***(2 marks)***

h) Plot a line graph that depicts the depreciation trend in amount expected from 2005 to 2007.
i) Print JAMII_INVENTORY, JAMII_FINAL and the graph. ***(3 marks)***

TEST PAPER 7:

Mrs. Rhoda Omari is a sales manager of a local firm, Double C Technologies Ltd. She has been asked by the managing director to prepare an appraisal report on the sales representatives. The table below shows the percentage performance for each sales representative.

Double C Technologies Ltd.			
PFNo.	**Name**	**Region**	**Performance (%)**
CC1011	Isaac Kwamboka	Nairobi	80
CC1018	Margaret Mbugua	Nairobi	62
CC1021	Ronald Ouma	Mombasa	70
CC1013	Gerald Henito	Eldoret	40
CC1033	Abdullah Karim	Mombasa	55
CC1028	Jane Auma	Kisumu	75
CC1014	Peter Chege	Nyeri	35
CC1020	Kiprono Mibei	Eldoret	30
CC1026	Ann Wangari	Nyeri	65

Required:

a) Represent the above information on a spreadsheet and save it as ***APPRAISAL***. ***(10 marks)***
b) Format the title **Double C Technologies Ltd** as follows:
   i. The font should be Tahoma 18 points bold, centred across columns. ***(4 marks)***
   ii. Enclose the title with a double outlined box. ***(2 marks)***
   iii. Bold the values in the performance column and apply grey shading. ***(4 marks)***
c) Create a pie chart showing percentage values that compares the performance of the sales representatives. ***(10 marks)***
d) The sales manager wants to moderate the performance figures such that the lowest performer has at least 60% and the highest 90%. The moderation formula is ***y = a + bx*** where:
   y – is the target performance
   x – is the current performance
   a and ***b*** are constants. The constants ***a*** and ***b*** can be obtained using a simultaneous equation:
   60 = a + 30b
   90 = a + 80b

i. Insert a new column labelled ***Moderated Performance***. ***(2 marks)***
ii. Calculate the moderated performance for each sales representative. ***(12 marks)***

e) Sort the worksheet in ascending order by region then by moderated performance. ***(6 marks)***
f) Save the worksheet as APPRAISAL. ***(2 marks)***
g) Print **APPRAISAL, APPRAISAL1** worksheets showing formulas instead of the values and the chart.

TEST PAPER 8:

Industrialization is causing continuous damage to the ozone layer especially in the northern hemisphere. A group of environmental sciences and engineers have come up with a prediction of the damage as a function of time. The worksheet below shows the predicted trend.

Year	Ozone layer thickness in meters
1990	60000
1991	55000
1992	50000
1993	45000
1994	40000
1995	35000
1996	30000
1997	25000
1998	20000
1999	15000
2000	10000
2001	5000

a) Create a workbook to store the information and save it as OZONE. ***(8 marks)***
b) Enter a new column to the right of OZONE LAYER THICKNESS with the following label and values. ***(5 marks)***

Environmental cost in billions of $
5
10
20
30
40
50

60
70
80
90
100
110

c) Insert a line chart of OZONE LAYER THICKNESS against YEAR in a new sheet. ***(8 marks)***

d) From the chart, deduce the following:
- The rate of depletion of the ozone layer.
- The year in which the ozone layer is likely to be depleted.
- The initial thickness of the ozone layer before destruction began.

e) Auto format the worksheet and save as OZONE. ***(5 marks)***

f) Insert a row between the column labels and the row that has year 1990. ***(2 marks)***

g) Insert a formula in the cell immediately to the right of 5 billion dollars that would cumulatively add the environmental costs. ***(5 marks)***

h) Copy the formula in (g) above down the column. ***(3 marks)***

i) Sort the worksheet in ascending order based on the OZONE LAYER THICKNESS column. ***(5 marks)***

j) Change all the formulas in the worksheet to absolute reference. ***(3 marks)***

k) Display the cell formulas for the worksheet and both the worksheet and chart. Save the worksheet as OZONE.

TEST PAPER 9:

You are going to perform some clerical work for a company called **Pata Pata Shoes**.

All currency values should be in Uganda Shillings with UGX sign visible.

1. Using a suitable software package, load the file **Payroll.xlx** **[1]**
2. Merge cells C1 to H1 and write the follow text: **PATA PATA SHOES LTD** **[1]**
3. Set the page orientation to landscape. [1]
4. Merge cells A23 to H23 and type in your name in upper case. [1]
5. Insert the follow information into their respective cells in the spreadsheet. [2]

Emp. No	**Advances / Loans**
W002	100,000
W006	100,000

W007	55,000
W010	85,000
W011	100,000
W012	97,000

6. Calculate the gross pay for each employee. [1]
   Note: Basic pay + Allowances
7. Calculate the amount of tax paid by each employee. *Note: tax is 18% of gross income*.[1]
8. Using an appropriate formula, calculate the net pay for each employee. [1]
   Note: Net pay = Gross pay less PAYE & Advances/loans [1]
9. Format all currency values to UGX instead of $. [2]
10. Format all decimal points to 2 decimal places. [2]
11. Change the view mode page break view, ensuring that only your work area is captured. [1]
12. Using the Emp. No. and Gross pay only, generate a line graph using income levels of all employees. *Make sure your graph is located below the table.* [2]
13. Rename your worksheet as Payroll. [1]
14. Save your spreadsheet as **PATA PATA SHOES**. [1]
15. Print out your work. [1]

TEST PAPER 10:

1. Using a suitable software package, load the file **SICTMARKS.xlx** [1]
2. Enlarge the column D to make sure that all headings words are visible. [1]
3. Insert 1 in the cell A2. [1]
4. Write a formula in cell A3 for serial number which increments by 1 and copy it to rest of the cell up to A18. [2]
5. Select all the work area and put all-borders.
6. Using the Year of Birth and 2016, compute the age the all students. [2]
7. Given the students marks in percentages (%) in column Paper 1, compute the marks out of 40 in column G. [2]

8. Given the students marks in percentages (%) in column Paper 2, compute the marks out of 60 in column I. [2]
9. In the Total column, compute the total marks, adding out of 40 and out of 60 marks. [2]
10. Bold all the cells A1 to J1. [1]
11. In cells G20, G21, G22 and G23, determine the Average, Minimum, Maximum and modal mark respectively. [2]
12. In cells I20, I21, I22 and I23, determine the Average, Minimum, Maximum and modal mark respectively. [2]
13. Save your work as your name. [1]
14. Print out your work. [1]

CHAPTER TWO
ELECTRONIC DATABASES

TEST PAPER 1:

Modern Technology Electronics Ltd wants to computerize her operations in order to enhance her service delivery. All clients' data will be held in a database called **MODERNBASE**.

Required:

a) In **MODERNBASE** database, create two related tables namely **Clients** and **Products** using the details given below: ***(10 marks)***

Client	**Products**
ClientID	CategoryID
Client Name	Product Description
Location	Unit Price
Postal Address	Quantity
Telephone	

b) Make the **ClientID** and **CategoryID** the primary keys in the two respective tables. ***(4 marks)***

c) The company wants to keep track of each item ordered by the client. Reinforce the referential integrity. ***(4 marks)***

d) Create columnar forms for each of the tables. Save the form as **ClientEntry** and **ProductsEntry**. ***(10 marks)***

e) Mary Atieno ordered for the items shown in the Products ordered table. Use the **ClientEntry** and **ProductsEntry** forms to enter the following records.

Client table:

ClientID	Client Name	Location	Postal Address	Telephone
MTE001	Emmanuel Ngunya	Kiambu	540	200878
MTE007	Mary Atieno	Migori	4080	245350
MTE009	Jimmy Wasike	Kakamega	54	567049
MTE016	Simon Muoki	Embu	3400	459900
MTE023	Susan Cherono	Eldoret	460	690650

Products table:

CategoryID	Product Description	Unit Price	Quantity
TV001	21" LG TV	16000	8
DV003	Sony DVD Player	4500	20
TV004	14" JVC TV	11000	22
RD003	Samsung Radio player	4700	8
TV007	14" ZEC TV	8200	4

f) Create a query that displays the *ClientID*, *Client Name*, *Location*, *Product Description*, *Quantity*, *Unit Price* and a calculated field, Amount being the product of quantity and Unit price. Save the query as **ItemsQuery**. (8 marks)
g) Generate a report based on the **ItemsQuery**. Save the report as **SalesReport**.
h) Print:
   i. Two tables in design view: Client and Product.
   ii. Two forms in form view.
   iii. ItemsQuery.
   iv. SalesReport.

TEST PAPER 2:

A consultancy firm keeps its details in a computer database. The information below contains details obtained from two tables of the database. Study the tables and answer the questions that follow.

Employees table

EmployeeID	EmployeeName	Department	Job Title	Salary
7369	Mark Koech	Research	Clerk	48,000
7499	Philip Meme	Sales	Salesman	16,000
7521	Mohamed Ali	Sales	Salesman	12,000
7566	Kennedy Simiyu	Research	Manager	39,000
7698	David Kamau	Operations	Manager	38,000
7782	Titus Ole Simian	Accounting	Manager	34,500
7788	John Onyango	Research	Analyst	30,000
7821	Patel Shah	Operations	Analyst	25,000

Department table

DeptCode	Department Name	Location
10	Accounting	Nairobi
20	Research	Nakuru
30	Sales & Marketing	Mombasa
40	Operations	Kisumu

Required:

a) Create a database that can be used to store the above data and save it as ALMAC in the disk provided. ***(10 marks)***
b) Using appropriate primary and foreign keys, create a relationship between the two tables. Enforce referential integrity between the tables. ***(4 marks)***
c) Validate the primary key entry to exactly four and two characters for the **EmployeeID** and **DeptCode** fields respectively. ***(4 marks)***

d) Create a form for each table and use it to enter the records shown in the table above. Save it as **EmployForm** and **DepartForm** respectively. ***(8 marks)***
e) It is required that the dates on which the employees were hired be included in the database. Koech was hired on 10/06/1998, Meme on 15/08/1996, Mohamed on 16/03/1996, Onyango on 09/03/2003, the rest were hired on 13/03/2004. Insert a new field, name it Date of Hire in the Employees table and enter the field. ***(5 marks)***
f) Create a query that displays employees who were employed after year 2000. Save it as **LatestEmployees**. ***(8 marks)***
g) Sort **LastEmployees** query in ascending order using the employee's name. ***(3 marks)***
h) Create a report that displays the Employee Name, Job Title, Department Name and Salary, grouped according to Location. Save the report as EmployeesReport. ***(8 marks)***
i) Print:
   i. Employees and Department table designs.
   ii. Employee and Department forms.
   iii. LatestEmployees Query.
   iv. EmployeesReport.

TEST PAPER 3:

Mr. Denis Wako, an IT consultant with Hill Stop Distributors is in the process of developing a Management Information System (MIS) for the company. Currently he is designing sales database using three tables namely: Customers, Products and Transactions. The details for each table are given below:

Customers	**Products**	**Transactions**
CustomerID	ProductID	TransacID
CustomerName	ProductDescription	ClientName
PostalAddress	Packaging	TransacDate
Town	UnitPrice	Product
Phone	Stock	Quantity

a) Create a database named HILL STOP and in it, create the three relations. ***(12 marks)***
b) Identify the most appropriate field as the primary key in each table. ***(3 marks)***
c) Establish the relationships among the three tables and enforce the referential integrity. ***(6 marks)***
d) Create a form for each table. Save the forms as CustomersForm, ProductForm and TransactionForm. ***(9 marks)***
e) Use the respective forms to enter the following records in each table. ***(9 marks)***

Customers table

CustomerID	CustomerName	PostalAddress	Town	Phone
H001	Benson Nguli	309	Kitale	200878
H002	Henry Kiongo	65	Nyahururu	245350

H003	Francis Wanyama	120	Homa Bay	567049
H004	Nancy Mwandime	1002	Machakos	459900
H005	Susan Chebii	890	Eldoret	690650
H006	Florence Kwamboka	30567	Nairobi	789060

Products table

ProductID	ProductDescription	Packaging	UnitPrice	Stock
AA001	Cooking Fat	20 kg Gal	16000	80
AA002	Rice	50 kg bags	4500	60
AB004	Detergents	5 litre Gal	11000	40
AC006	Fertilizer	50 kg bags	4700	30
AA007	Mineral water	1.5 litres	8200	400

Transaction table

TranscID	ClientName	TransacDate	Products	Quantity
1001	Benson Nguli	06/04/2007	Cooking Fat	6
1002		26/04/2007	Mineral water	8
1003	Henry Kiongo	23/04/2007	Detergents	10
1004	Florence Kwamboka	14/04/2007	Cooking Fat	12
1005		02/05/2007	Rice	4
1006		08/05/2007	Fertilizer	3
1007	Henry Kiongo	16/05/2007	Detergents	25

f) Create a query that display the Customer Name, Product Description, Quantity, UnitPrice and a calculated field total payable by each customer. Save the query as HillQuery. ***(6 marks)***

g) Generate a report from HillsQuery. Save the report as HillsReport. ***(5 marks)***

h) Print the customers, products, transaction tables designs, HillsQuery and HillsReport.

TEST PAPER 4:

High Seasons is a holiday resort firm. It has several branches all over the world. In order to keep track of its employees, a database to organise employee information is required.

a) Create a database file and save it as SEASON in the disk provided. ***(2 marks)***

b) Create a table containing the following fields. ***(4 marks)***

Field Name	Field Type
EmployeeNo.	AutoNumber
Date of Birth	Date/Time
Grade	Text

c) Make the field EmployeeNo. The primary key and save the table as **EMPLOYEES**. ***(3 marks)***

d) i. Create a form based on the EMPLOYEES table and save it as EMPLOYEESFORM. ***(5 marks)***

ii.. Use the form to enter the records below: ***(6 marks)***

Employee No.	**Date of Birth**	**Grade**
1	5/15/1960	G
2	4/28/1978	H
3	10/30/1972	R
4	12/5/1975	H
5	2/28/1974	G
6	1/3/1970	G
7	11/24/1956	H
8	3/10/1984	G
9	6/4/1956	S
10	8/11/1964	R

e) Modify the EMPLOYEES table by adding two new fields: ***(4 marks***)

Field Name	**Field Type**
SALARY (SHS)	Currency
ADDRESS	Text

f) i) Create another table containing the following fields. ***(4 marks***)

Field Name	**Field Type**
HouseID	AutoNumber
Number of Rooms	Number
Location	Text
Rent	Currency

ii.. Make the field HouseID the primary key and save the table as HOUSE. ***(2 marks)***

g) Create a relationship that enforces referential integrity. ***(4 marks)***

h) Create a query and save it as EMPLOYEESQUERY based on the EMPLOOYEES table that would display all the employee's in grade H and R and their salaries. ***(4 marks)***

i) Sort the records in the EMPLOYEESQUERY in alphabetical of GRADE field. (3 marks)

j) Create a columnar report with portrait orientation from the EMPLOYEESQUERY. Save the report as EMPLOYEESREPORT. ***(4 marks)***

k) Enter a function to compute the salaries grand total displayed in the report. ***(3 marks)***

l) Insert a header EMPLOYEES IN GROUP H AND R in the report having font size 20pts to the left of the page. ***(2 marks)***

m) Print the EMPLOYEE TABLE HOUSES TABLE, EMPLOYEES FORM, EMPLOYEESQUERY and EMPLOYEESREPORT.

TEST PAPER 5:

A media house sell advertising space on its channels. It has a database of two tables.

a) Create a database file on the disk provided and save it as ADVERTS. (2 marks)

b) Create two tables containing the following fields. (6 marks)

CUSTOMERS_TABLE

Field	Data Type	Field size
Customer_ID(PK)	Text	4
Customers_Name	Text	50
Target Audience	Number	Long Integer

RATES_TABLE

Field	Data Type	Field size
Rate_ID(PK)	Text	4
Rate_Name	Text	50
Rate_Cost	Number	Long Integer
Time	Number	Long Integer

c) Validate the Time field to accept entries between 30 and 60 only. ***(4 marks)***

d) i) Create a one-to-many relationship between the CUSTOMERS table and the RATES table. Consider that one customer can be charge many rates. ***(4 marks)***

ii). Enforce the following constraints on the relationships: ***(6 marks)***

- referential integrity
- Cascade update related fields
- Cascade delete related fields.

e) Create a form based on the **CUSTOMER_TABLE** and use it to enter the following data. ***(4 marks)***

Customer_ID	Customer_Name	Target Audience
1000	Wello Limited	600000
1001	Lamp International	1000000
1002	Texas Kenya	100000
1003	Vail Co	500000
1004	Mills Vigo	200000
1005	Orient International	300000

f) Create a form based on the RATE_TABLE and use it to enter the following data. ***(4 marks)***

Customer_ID	Rate_ID	Rate_Name	Rate_Cost(Ksh)	Time(s)
1000	2	Morning	3000	60
1003	1	Afternoon	5000	30

1000	3	Evening	2500	30
1005	2	Morning	3000	60
1000	1	Afternoon	5000	30
1005	3	Evening	2500	30
1004	3	Morning	3000	60
1003	2	Morning	3000	60
1001	2	Morning	3000	60

g) i. Create a query named CUSTOMER_BILLS that shows Customer_ID, Customer_Name, Rate_ID and Rate_Name. ***(6 marks)***
ii.. Sort the CUSTOMER_BILLS query in descending order by Rate_Cost. (2 marks)

h) Create a tabular report based on the CUSTOMER_BILLS query that satisfies the following conditions:
- Should have a title: "BILLS PER CUSTOMER" bolded and centred at the top.
- Subtotals based on Customer_ID with subtotals.
- It has total amounts payable by all customers being the sum of the Rate_cost field.

Save the report as CUSTMERBILLS.

i) Print CUSTOMER and RATE tables, CUSTOMER_BILLS query and CUSTOMERBILLS report.

TEST PAPER 6:

You are now going to prepare a database for a company that deals in general merchandise.

Using a suitable database software, create a database and save it as Oliver Trist Commercial. [2]

1. Create a customers table using the details given below. [2]

Customer_ID	*text*	*the unique number of the each customer*
Postal_Address	*text*	*the postal address of the customer*
Town	*text*	*the town of residence of the customer*
Phone_no	*number*	*the mobile phone number of the customer*

2. Create a transactions table using the details given below. [2]

Transaction_ID	*text*	*the unique transaction identifying code*
Customer_ID	*text*	*the unique number of the each customer*
Transaction_Date	*date/time*	*the date the transaction happened*
Product	*text*	*the name of product*
Quantity	*text*	*the number of items purchased*

3. Create 2 forms and use it to insert the records below in both customers table and products table. [2]
   i) Set the colour of the form to yellow. [1]
   ii) Add the form headers bearing the text "Customers table" and "Transactions table" respectively. [1]
   iii) Bold all the labels of the form. [1]

4. Use the form you have created above and enter the record below in their respective tables.

Customers table. [2]

Customer_ID	Customer_Name	Postal_Address	Town	Phone
H001	Benson Nguli	309	Kitale	200878
H002	Henry Kiongo	65	Machakos	245350
H003	Nancy Kai	120	Eldoret	567049

Transactions table [2]

Transaction_ID	Customer_ID	Transaction_Date	Product	Quantity
1001	H001	06/04/2007	Cooking oil	6
1002	H002	06/04/2007	Detergents	8
1003	H003	07/04/2007	Rice	10

Check your data for entry errors.
Save the data

5. Produce a report which contains the information like the shown below. [2]

Customer_ID	Customer_ID	Customer_Name	Transaction_Date	Product	Quantity
H001	H001	Benson Nguli	06/04/2007	Cooking oil	6
H002	H002	Henry Kiongo	06/04/2007	Detergents	8
H003	H003	Nancy Kai	07/04/2007	Rice	10

6. Set the page orientation of the report to landscape. [2]

Save and print 1 copy of this report.

TEST PAPER 7:

You are supposed to create and save a database with tables, relationships, queries and reports using MS Access, according to the instructions given below.

1. You need to create a database for a public library to store book details. For this, create a blank database and save it as Public Lib. [2]
2. Create a table called "**Books**" with the following fields. [2]

Field Name	Type	Field size	Constraints
ID	Number		Primary Key
Title	Text field	50 characters	
Description	Text field	30 characters	
Category	Number		
No of copies	Number		

3. Create a form to enter details about books and save it as "**Books Form**". [2]
4. 4. Add following records to the "**Books**" table using the "**Books Form**". [2]

ID	Title	Description	Category	No of copies
1	Word	Hard cover	2	2
2	Computers	Hard cover	4	2
3	Access	Paperback	2	2
4	Art	Hard cover	1	1
5	Science	Paperback	3	1

5. Create another table called "**Book Copies**" with the following fields. [2]

Field Name	Type
ID	Number
Book _ID	Number
ISBN	Number
Version	Number

6. Identify the Primary Key(s) of this table (if there is any). [2]
7. Insert following records to the "**Book Copies**" table. [2]

ID	Book_ID	ISBN	Version
1	1	1234	1
2	1	1235	2
3	2	1236	1
4	2	1237	3
5	3	1238	2
6	3	1239	3
7	4	1241	4
8	5	1242	7

8. Establish the Relationship between "**Books**" and "**Book Copies**" tables. [2]
9. Write a query called "**Query_Book category**" to display all books which belongs to given category; E.g. Category 02. [2]
10. Create a report called "**Book Details**" displaying all books in Book Details table. [1]
11. Save your work. [1]

TEST PAPER 8:

The table below shows Transaction records of SH family supermarket between 1990-2016.

CustomerID	CustomerName	Phone	TransDate	TotalPrice
SH001	Andrew M	0772-008-752	06/04/2006	260000
SH002	Okello H	0796-248-567	26/04/2010	440000
SH003	Nakintu N	0787-967-888	23/04/2011	210000
SH004	Kato W	0778-400-569	14/04/2015	450000
SH005	Nakintu J	0702-666-790	02/05/2002	810000
SH006	Matovu K	0754-090-665	08/05/1991	950000
SH007	Owino R	0785-977-666	16/07/2016	650000
SH008	Nakato N	0778-400-569	12/04/2015	610000
SH009	Ampire A	0702-666-799	18/03/1990	520000
SH010	Fujju N	0755-090-665	16/09/2008	650000

a) Create a database called SH family. ***(2 marks)***
b) Create a table using design view with appropriate data types and set the correct primary key. Save your table as stock. ***(4 marks)***

c) Create a form called Customer. ***(2 marks)***
d) Use the form created above to enter the given records above. ***(6 marks)***
e) Create a query to display all details of items whose transaction is not in the year 2015. Save your query as **not in year 2015**. ***(2 marks)***
f) Create another query to display phone numbers that end with "**9**". Save your query as Number. ***(2 marks)***
g) Create another query that will display customer name which starts with letter "N" and with total price above 300000. Save it as **letter N**. ***(4 marks)***
h) Create a report to display information for those whose total price is greater than 350000. Include header and footer in your report. Save your report as **report for 350000**. ***(4 marks)***
i) Print only the report. ***(2 marks)***

CHAPTER ONE
ELECTRONIC PRESENTATION

TEST PAPER 1:

You are going to participate in a computer studies seminar and you have been told to prepare a presentation about the three categories of computers: Analog, digital and hybrid. Using any presentation software, design a presentation that you will show at the seminar, using the content below:

Slide 1: Title slide
Your name and position.

Slide 2: Introduction

Computers can be categorized according to the process they used to represent data.
People communicate through speech by combining words into sentences.
Human speech is analog because it uses continuous (wave form) signals that vary in strength and quality.
Most computers are digital.

Slide 3: Analog computers

Analog Computer is a computing device that uses continuously changing values to represent information.
It generally deals with physical variables such as temperature, weight, voltage, pressure, speed, etc.
Examples of Analog computers include: Thermometers, Weighing scale, Voltmeters, barometers, Speedometers, etc.

Slide 4: Digital Computers

These are computers that use discrete (discontinuous) values, especially binary digits (0, 1) to represent data.
The state of being on is represented by 1 and off is represented by 0.
Digital computers are more accurate and work at a very fast rate.
Examples of Digital Computers Include: All Personal computers (PCs) , Laptops, Digital Watches, etc.

Slide 5: Hybrid Computers

A hybrid computer combines the desirable features of analog and digital computers.
A digital computer that accepts analog signals converts them to digital for processing.
Hybrid computers are mainly used for specialized tasks.

Required:

(i) Create a five slide presentation in which slide one is the title slide, which will have a suitable title, your name and an automatic date.

(ii) Use suitable background, slide transitions and text animations.

(iii) Include clip arts where possible.

(iv) Include your name all slides except the title slide.

(v) Set your slide magnification to 70%.

(vi) Save as ***Computer Categories*** and print your work.

TEST PAPER 2:

You are supposed to create a presentation file using Presentation software, according to the instructions given below.

a) You are provided with a file saved as **Forests.ppx**. Open it and carry out the following instructions. [1]

b) On the first page of the page, insert your name at the bottom. It should be in font size 15, style = Tahoma, bold and aligned to the right, font colour = black. [1]

c) Insert a photo saved as 'trees_cut', in between the heading and your name. Centre your picture here. [1]

d) Change the picture size to height 2", width 3". [1]

e) Create other five blank slides to contain the following: [1]

f) Slide two to include the heading, definition of terms. On this slide add a simple meaning of a forest and give five examples of forests in Uganda. This list should be unordered. [1]

g) Slide three to include the heading, "**Uses of forests**". On this slide, write down six uses of forests in Uganda, this list should be numbered in the format of 1-, 2-, e.t.c. [1]

h) Slide four to include the heading "**Deforestation in Uganda**". On this slide, include seven causes of deforestation in Uganda. [1]

i) Slide five, to include "**Solutions to deforestation in Uganda**". Include six ways to control deforestation in Uganda. The list should be unordered. [1]

j) Slide six, to include the conclusion. This should include about three well-structured lines in font size 30. This should appear at once. [1]

k) All the content should be in font size 30, colour = black, style = Tahoma. [1]

l) Insert page numbers on all slides in your presentation. [1]

m) At the bottom, insert an action button link from page 1 to 2, 2 to 3, 3 to 4, 4 to 5, 5 to 6 and 6 to 1. [1]

n) All the content should appear one after another after a click. [1]

o) Custom animate all headings to bounce and all written text to fade. [1]

p) Insert a uniform slide transition in all your work. [1]

q) Make sure that all the headings are centered in font size 42, font colour black.[1]

r) Insert a footer, bearing your name and index number & automatic date. [1]

s) Save your work as 'Trees_Uganda'. [1]

t) Print only the first two slides. [1]

TEST PAPER 3:

You are going to create a short presentation using an appropriate presentation software.

1. Your teacher requested you to design a five slide presentation on the topic of networking which would be used for conducting a lesson in the Senior Five class. Save your presentation as Networking.
   [4]
2. **Slide 1** should have the introduction of the topic and the name of the presenter. [2]
3. **Slide 2** should have the advantages of networking computers. [2]
4. **Slide 3** should have the disadvantages of networking computers. [2]
5. **Slide 4** should have factors affecting communication speed on the network. [2]
6. **Slide 5** should have hardware and software requirements for networking. [2]
7. **Slide 6** should have pictures of networking hardware. Insert the file **networking.jpg** into this slide and resize it accordingly. [2]
8. Save the presentation as a PowerPoint show with the file name **Computer Networking**. [1]
9. Print all slides with six slides on one page. [1]
10. Apply appropriate slide transitions to your presentation. [2]
11. Print only the first 2 slides on a single page.

TEST PAPER 4:

As a computer studies candidate, you have been approached by PLAN INTERNATIONAL, an NGO that protects and fights for rights to design a presentation about child rights to be presented to parents.

a) You are required to prepare a five slide presentation with the topic or title "Let Fight for Children's Rights" on the first slide. Apply word art on the title slide with name and designation of the presenter. ***(4 marks)***
b) Briefly describe what you know about children's rights on slide four. ***(4 marks)***
c) Using organisation or smart chart, categorise the different kinds of child abuses you know on slide three. ***(4 marks)***
d) Outline solutions to stop child abuse on slide four. ***(4 marks)***

e) State the ways in which children can be made aware of their rights on slide five. Note the following: ***(4 marks)***

f) Use fly in animation scheme from top left corner for viewing your presentation. ***(1 mark)***

g) Insert relevant clips to give relevance to your slides. ***(2 marks)***

h) In slide one, insert speaker note: "Children are the future of tomorrow" ***(1 mark)***

i) Let your slides loop continuously till escape button is pressed. ***(1 mark)***

j) Include header with your names, footer with your index number. ***(2 marks)***

k) Use relevant slide design templates to ensure that no section of the slide layout is left unattended to. ***(1 mark)***

l) Make a print out of all your slides fitting on one page. ***(1 mark)***

m)Save your presentation as "Child abuse" on the disk. ***(1 mark)***

CHAPTER ONE
ELECTRONIC PUBLICATIONS

TEST PAPER 1:

Design eight 3.5" by 2" business cards tiled on an A4 page as shown the illustration below. ***(10 marks)***

a) The cards' layout and spacing is as follows:
   i. Left and right margins should be 0.5".
   ii. Top and bottom margins 0.7".
   iii. The vertical and horizontal gap between cards 0.6". ***(9 marks)***
b) The details of the card are:
   i. A logo of the company at the left hand side of the card. Provide the logo.
   ii. Company name: **Hellman Digital Works**.
   iii. Name: **Patrick Ndegi**
   iv. Contact address: **P.O. Box 200 Nairobi**
   v. Phone: **+255700101010**
   vi. Email: **patrickndegi@gmail.com** ***(25 marks)***
c) Save the publication as BusinessCards. ***(2 marks)***
d) Print the publication.

TEST PAPER 2:

Design a one month calendar using the sample given below as a reference. In your design, take into account the following: ***(20 marks)***

a) The size of the calendar should be A4, landscape orientation. ***(4 marks)***
b) The day headings, moth and year should be in reverse text. ***(9 marks)***
c) The sample picture on the calendar may not be the same but it should have a mirror image flipped vertically. ***(8 marks)***
d) The Sunday column dates should be in red. ***(2 marks)***
e) The margins should be 20mm all round. ***(4 marks)***
f) Insert the text "Remember to organize…" rotated at 90^0. ***(5 marks)***
g) Save the publication as May.
h) Print out your work.

TEST PAPER 3:

a) *Create a two page publication and type the following text below and save the file as Benefits.*

BENEFITS OF ICT

Technology is key to the future of every business unit and government department. The right IT systems will help streamline business processes and improve the flow of information, enable effective communications, and provide real-time management information for more reliable decision making.

Organizations that fail to make sufficient investment in their IT infrastructure are likely to experience lower productivity and higher operating costs.

From processing power, networking and remote computing, to backup and storage, operational and management software, security, print and document management, we can help you get more from your IT estate. Key to our service is a focus on reducing complexity, so your IT infrastructure saves you money and is easier to manage.

b) Draw a circular text frame of radius 60mm that is to appear at the top centre of Benefits publications. In the circle, type in the text below:
"Popular DTP programs include Adobe PageMaker, Microsoft Publisher and QuarkXPress."

c) Save the file in the disk provided.

TEST PAPER 4:

In this question you are going to make twelve identical business cards in your names.

a) Using an appropriate software create a blank business card layout. [4]

b) Adjust the paper size to A4. [2]

c) Design a business card and include the following details. [2]

   i) Insert the company name as "**RHINO SHOES LTD.**" [2]

   ii) Insert **logo.PNG** and resize it & position it appropriately. [4]

   iii) Use your **name** and **index number** as the owner of the card. [1]

   iv) Telephone: **+256772002211** [1]

   v) Address: **P.O. Box 2311 Lira** [1]

   vi) Email: **yourname@gmail.com** [1]

d) Print out a copy of the publication, ensuring that only 4 business cards appear on the printout. [2]

TEST PAPER 5:

In this question, you are going to create a calendar.

1. Using an appropriate software, create a calendar, ensuring that all the 12 months appear on one page. [4]
2. Set the page size to A4. [2]
3. Set the margin to narrow. [2]
4. Insert the text box and add the following text: **ANTE CARE** [2]
5. Insert the picture **ante_care.JPG** and resize it appropriate on your calendar. [2]
6. Insert a footer, bearing your name and index number, aligned to the centre. [2]
7. Increase the magnification of your calendar to 120%. [2]
8. Save your calendar as **Ante_Care_Calendar**. [2]
9. Print out your work. [2]