TOP STUDENT KCSE

COMPUTER PREDICTIONS

(SERIES 1)

FOR MARKING SCHEMES

AND OTHER SIMILAR

RESOURCES,CALL/WHATSAPP

0746 711 892

N/B:DUE TO HIGH COSTS INCURRED

WHILE COMING UP WITH THIS AND OTHER SIMILAR RESOURSES,

MARKING SCHEMES ARE NOT FREE OF

CHARGE.

QUESTIONS ARE FREE

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 1

Kenya Certificate of Secondary Exams

TIME: (2 HOURS)

INSTRUCTIONS TO CANDIDATES

- *Write your name and index number in the spaces provided above*
- *This paper consists of **Two** sections **A** and **B**.*
- *Answer **ALL** questions in section **A**.*
- *.Answer question 16 and any other **THREE** questions from section **B.***
- *All answers should be written in the spaces provided on the question paper.*

FOR OFFICIAL USE ONLY

SECTION		QUESTIONS	QUESTION'S ACTUAL SCORE	CANDIDATES SCORE
A	1-15			
B	16			
	17			
	18			
	19			
	20			
		TOTAL SCORE		

SECTION A (40 MARKS)

Answer all questions

1. Distinguish between logical and physical files. **(2mks)**

2. State ***three*** ways in which computers can be used in

(a) Financial institution. **(1½ mks)**

(b) Transport system **(1½ mks)**

3. List ***four*** techniques of using a mouse. **(2mks)**

4. (a) What is virtual reality? **(l mk)**

(b) State ***four*** components of sensory devices used in virtual reality. **(2mks)**

5 (a) Explain ***two*** advantages of using universal serial bus. **(2mks)**

(b) Explain ***one*** reason why parallel cables are faster than serial cables in data Transmission. **(2mks)**

6. (a) Describe ***two*** differences between metropolitan area network and wide area network **(2mks)**

(b) List any ***three*** components of local area network. **(1mk)**

7. State ***two*** peripheral devices connected to a computer via PS/2 **(l mk)**

8. List any ***two*** careers available in the market in the computer hardware. **(2mks)**

9. A computer teacher wants to minimize illegal entry of people to a computer laboratory.Explain ***three*** measures in which to have to putt in place in order to curb this illegal entry. **(3mks)**

10(a) State ***four*** keyboard keys that work in a state of On/Off switches in operation. **(2mks)**

(b)Describe ***two*** precautions one need to undertake when connecting a hard disk to a computer**.** **(2mks)**

11.(a) Give ***two*** reasons why its' difficult to detect and prevent a computer crime **(2mks)**

(b) State the differences between autocorrect and auto complete as used in word processing. **(2mks)**

12.(a) Define the term

i) Search engine **(1mk)**

ii) System entropy **(1mk**

(b) Give an example of search engine. **(½ mk)**

13. (a) What is real time? **(1 mk)**

(b) Explain how real time differs from distributed processing mode**.** **(2mks)**

14. **(a**) Describe ***three*** disadvantages of using monolithic program. **(3mks)**

(b) Explain the uses of the following in desktop publishing.

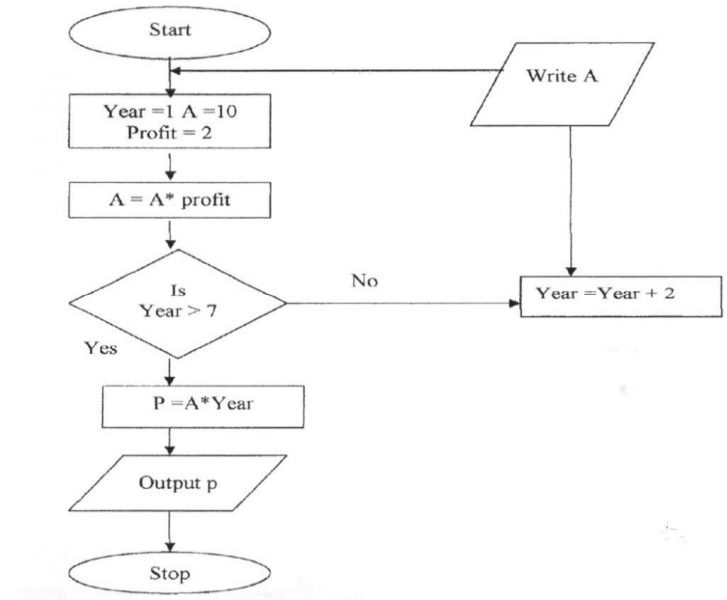
i) Master page **(1mk)**

ii) Tracking **(1mk)**

SECTION B (60MARKS)

Answer question 15 and any other three questions

15. Study the flowchart below and answer the question that follow

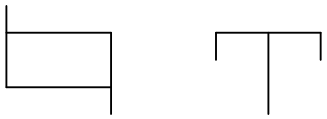


(a) List the various outputs from the flowchart above. Show your working. **(5mks)**

(b) Write a pseudo code for the flowchart. **(6mks)**

(c) State ***two*** advantages and disadvantages of high level languages. **(4mks)**

16. You are provided with two types of DTP tools



(R) (Q)

a) Identify tool.

i) R **(1mk)**

ii)Q **(1mk)**

(b) State ***three*** methods of transforming an object. **(1½mks)**

(c) Perform the following binary operation in decimal notation.

i) 10111.111 + 111.011 **(3mks)**

ii) 1111.01 - 111.11 **(3mks)**

(d) Explain any ***two*** ways in which you can tell that a computer has been invaded by virus. **(2mks)**

(e) Describe the steps to follow in order to

i) Attach a file to an E-mail **(2mks)**

ii) Check E-mail from internet **(1 ½mks)**

17. (a) (i) What is expert system? **(l mk)**

(ii) Explain **three** components of expert system? **(3mks)**

iii) State the value that will be displayed in E2. **(l mk)**

(b) Describe the impact of information communication technology in

(i) Environment **(2mks)**

(ii) Employment **(3mks)**

(c) (i) Define disk partitions **(1mk)**

(ii) Explain **two** reasons that may lead to a partition of a hard disk **(2mks)**

(d) A work sheet contains the data shown below

Cell	B1	B2		C2	D2	E2
Entry	65	70		80	35	=sum if (b_1:b_2" >35")

i) Give the formula that can be used to obtain product of B2 and D2. **(lmk)**

ii) State cell data type that represent cell B1 **(1mk)**

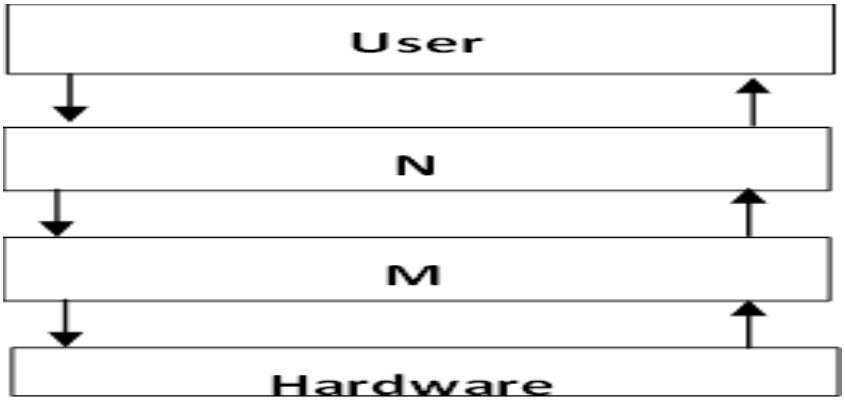
18 **(a) (i)** Explain ***three*** components of satellite **(6mks)**

(ii) State ***two*** advantages of 18 a(i) above media **(2mks)**

(iii) List ***three*** examples of radio waves signals **(3mks)**

(b) Explain ***two*** reasons why optical cables have become best choice for local area network**.** **(4mks)**

19. The diagram below represents the role of operating system in a computer system. Use it to answer the questions that follow.(2 marks)



(a) Name the part labeled tie

i) M **(l mk)**

ii) N **(l mk)**

(b) Explain ***two*** advantages of using program N in commercial organization**.** **(4mks)**

(c) Classify three types of program **M** **(3mks)**

d) State ***three*** situations that may lead to use of questionnaire than interviews. **(3mks)**

(e) Explain the purpose of the following files

(i) Backups **(lmk)**

(ii) Reference **(lmk)**

(f) State ***two*** types of database relationships. **(l mk)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 1

Kenya Certificate of Secondary Exams

TIME: (2 HOURS)

Instructions to schools

The information contained in this document is to enable the headteacher of the school and the teacher in charge of the computer studies (451) to provide adequate preparation for this year's computer studies practical examination, paper 451/2

Each school offering computer studies (451) should ensure that:

1. Each candidate is provided with a computer which has:

- A DVD/RW or a CD/RW disk drive.
- DVD/RW or CD/R or CD/RW
- The following software installed o DTP e.g. Ms publisher or PageMaker o Word processor e.g. Ms word o Database e.g. Ms Access

  o Spreadsheet e.g. Ms Excel

2. There should be enough computers and fast printers to enable the candidates to take the examination in **NOT MORE THAN TWO SESSIONS.**

3. Computers provided should be IBM compatibles.

4. The teacher in charge of computer studies should ensure that the computer network in the examination room is disabled.

5. All files related to the examination are deleted from the computers before the beginning of each session.

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 2

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

a) *Write your name and index no in the spaces provide above.*
b) *Sign and write the date of examination in the spaces provided above*
c) *This paper consists of **TWO** sections **A** and **B***
d) *Answer all questions in **Section A***
e) *Answer question **16** and any other **THREE** questions from **Section B***
f) *This paper consists of 13 printed pages, ascertain if all papers are printed*

SECTION A (40 MARKS)

Answer all the questions in this section

1. State ***two*** functions of each of the following computer keyboard keys as used in Ms Word

(a) Shift key **(2mks)**

(b) Enter key **(2mks)**

2. Give a reason why an organization would be more secure to share files using intranet instead of internet **(2mks)**

3. Explain the following disk management utilities

(a) Disk compression **(2mks)**

(b) Disk clean up **(2mks)**

4. Distinguish between special and embedded computers **(2mks)**

5..Joel does the following duties in his organization.

- Advice the organization whether the present system should be modified or replaced
- Ensure that the modified/replaced system works properly as required

What is his most appropriate job title? **(1mk)**

6. An expert system attempts to automate the knowledge of reasoning of human expert. List ***three*** major components of an expert systems **(3mks)**

7. In a war torn countries such as Somalia, explosives that get buried under ground requires removal in order to provide safety for the people.

(a) Name a computer controlled device that would be used safely for detecting such explosives **(1mk)**

(b) Explain why you recommend the use of such a device in (a) above **(1mk)**

8. Explain briefly how Electronic Funds Transfer (EFT) and Electronic Point of Sale (EPOS) is used to facilitate business in Nakumatt supermarkets in Kenya **(4mks)**

9. Distinguish between online and batch processing (2mks)

10. Benjos was instructed by his teacher while typing a Microsoft word document to replace all the occurrences of the word MS with Microsoft. Highlight the steps to do this (3mks)

11. (a) Explain the following Data base field properties

(i) Default value **(1mk)**

(ii) Validation rule **(1mk)**

(b) State ***two*** functions of querry **(2mks)**

11. List ***two*** types of power protection devices oftenly used in a computer laboratory **(2mks)**

12. (a) In order to encrypt a message, a _____ key is needed while to read an encrypted message, a _____ key is needed **(2mks)**

(b) What is a firewall **(1mk)**

13. Differentiate between cropping and rotation as used in Desktop publishing **(2mks)**

14. Give ***two*** examples of solid state secondary storage media **(2mks)**

Section B (60 marks)

Answer question 16 and any other three questions from this section

16. (a) Explain the meaning of the following terms as used in programming

(i) Source code **(1mk)**

(ii) Object code **(1mk)**

(b) Differentiate between SYNTAX error and LOGICAL error **(2mks)**

(c) Draw a flow chart to find the sum of first 50 natural numbers **(11mks)**

17. (a) Give ***two*** examples of internal peripheral devices **(2mks)**

(b) State ***two*** tasks performed by the operating system in each of the following resources

(i) Memory **(2mks)**

(ii) Input/output devices **(2mks)**

(c) (i) What is the importance of a file extension? **(1mk)**

(ii) State the file type and function of the following file extensions

.sys **(2mks)**

File type-

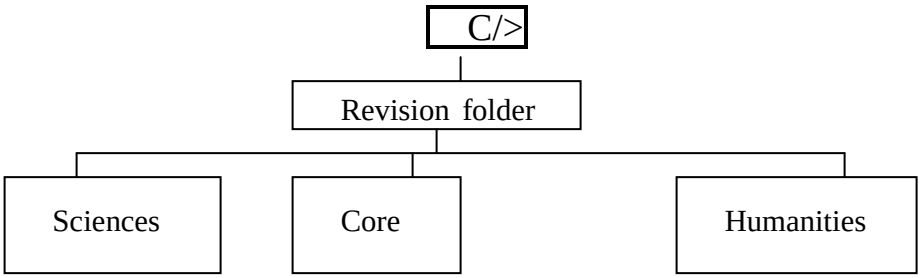
Function -

.exe **(2mks)**

File type-

Function -

(d) Nyokadi created a folder in local C with the following sub folders and files



Chem File Bio File) Chem File	Maths File CRE File Eng File Kisw File	Geo File Hist File

(i) What will happen if an attempt is made to delete humanities folder while History file is open **(1mk)**

(ii) State two advantages of this file organization structure **(2mks)**

(iii) Nyokadi copied this structure in a flash disk. He accidentally deleted Humanities folder. He attempted to open the recycle bin to restore, but the folder was no where to be found. Explain this phenomena. **(1mk)**

18. The worksheet below shows sales for the month of July by the employees of Newtech information center. Use it to answer the questions that follow.

	A	B	C	D	E	F
1	First name	Second name	Sales in sh			
2	Yonah	Kassim	2000.12510			
3	Jose	Kiddo	7200.1741			
4	Kelvin	Joro	1500.131			
5	Lores	Ayona	2600.1011			
6	Bett	Gilbert	2000.1200			
7	Osoro	Kiplat	1001.0113			
8	Zainad	Jad	500.1211			
9	Hassan	Makotti	400.10010			
10	Jonnie	Imran	3111.0110			
11						
12						

Write the correct expression:

(i) In cell D3 that would print "PROMOTE" if the amount of sales is greater than sh. 1600 and DEMOTE" if not **(2mks)**

(ii) In cell D3 that would print remark "WINNER" if sales are the highest and "MEMBER" if not **(5mks)**

(iii) In cell D3 and D7 that would round the values in cell C3 into zero decimal place and C7 into 2 decimal places **(2mks)**

(d) Explain the following cell data types in spreadsheet:

Labels **(1mk)**

Values **(1mk)**

(e) Distinguish between a formula and a function as used in spread sheet **(2mks)**

19. (a) Though twisted pair cables are least expensive are limited by attenuation and cross talk. What is the meaning of:

Attenuation **(1mk)**

Cross-talk **(1mk)**

(b) Give the function of the following layers found in file optic cable **(3mks)**

(i) Core

(ii) Cladding

(iii) Buffer

(c) (i) What is a protocol? **(1mk)**

(ii) State the function of the following internet protocols

SMTP **(1mk)**

FTP **(1mk)**

(d) Specify which layer of the OSI model the following connectivity devices operate

(i) Bridges **(1mk)**

(ii) Routers **(1mk)**

(e) Explain the meaning of the following networking terms

(i) Work station **(1mk)**

(ii) Modulation **(1mk)**

(f) What do the following acronyms stand for

(i) WAP **(1mk)**

(ii) GSM **(1mk)**

(g) Give one application of infrared technology today **(1mk)**

20. (a) Compute the value of x in the following expressions

(i) $24.35_{10} = X_2$ **(4mks)**

(ii) $6AB_H = X_{10}$ **(2mks)**

(b) Using twos complements compute the following using 8 bits **(6mks)**

$20_{10} - 25_{10}$

(c) Write these abbreviations in full text **(3mks)**

(i) BCD

(ii) EBCDIC

(iii) ASCII

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 2

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES.

- *Type your **name** and **index** number at the top right hand corner of each printout.*
- *Sign and write the date of the examination below the name and index number on each printout.*
- *Write your name and index number on the compact disks*
- *Write the name and version of the software used for each question attempted in the answer sheet.*
- *Passwords **should not** be used while saving in the compact disks*
- *Answer all the **questions***
- *All questions carry equal marks.*
- *All answers **must** be saved in your compact disks*
- *Make a printout of the answers on the answers sheets provided.*
- *Hand in **all** the printouts and the compact disks*

1. Mwangaza Training College offers three Courses to students. A student sits for three exams every semester, each exam marked out of 100. The students must have been enrolled first. The following is sample data collected from the college database.

Courses

Course	Course description	Tuition fees
D-SECT	Secretarial Diploma	Kshs. 15,000
D-INT	Diploma in IT	Kshs. 18,000
D-ACCT	Diploma in Accounting	Kshs. 16,500

Students enrollment

Student ID	St name	Sex	Date enrolled	Course code
SECT- 01	Gladys Cherop	Female	12/05/2011	D-SECT
INT – 03	James Mucheru	Male	16/05/2011	D-INT
ACCT - 04	Peter Marangi	Male	18/05/2011	D-ACCT
SECT - 06	Jane Kamene	Female	17/05/2011	D-SECT

Exams offered

Exam code	Ex name
01	**Opener**
02	**Midterm**
03	**Endterm**

Exam performance

Exam record no	Student ID	Exam code	Semester	Score
1	SECT – 01	01	2	75
2	INT – 03	02	2	80
3	ACCT – 04	01	2	65
4	SECT – 01	02	2	70

5	ACCT – 04	02	2	60
6	INT – 03	01	2	68
7	SECT – 01	03	2	78
8	INT – 03	03	2	74
9	ACCT – 04	03	2	66

NB:- A course can be enrolled by many students and a student can do many exams. One exam can also be done by many students as shown in exam performance table.

Required

a) Create a database file called Mwangaza College and save it. **(2 Marks)**

b) Create a table structure for each of the four tables, setting most appropriate field as the primary key and choosing the most appropriate data type for each field. **(12 Marks)**

c) Relate the four tables as required to have one to many relationships **(4 Marks)**

d) Create a data entry form for each table **(8 Marks)**

e) Using the forms, populate the tables with the records **(8 Marks)**

f) Query the tables to show Stname, Coursedecsription, Exname, Exrecordno and score for all students who scored greater than 70. Save the query as high score **(5 Marks)**

g) Create a grouped report that displays every student's details and his or her exam performance as follows;

Student details – Stname, StudentID, Coursedescription.

Exam performance – Exname, Score, Average score. Save the report as performance report

h) Print Exam performance table in landscape, high score query in portrait and performance report in portrait orientation. **(6 Marks)**

2. a) Type the following document in a word processor and save it as Simulation **(20 Marks)**

Meaning

Is a method of approach to problems which involves building a model of the system to be investigated observing the behavior of the system by gathering useful data about the model. It is therefore a "**Try and see what happens**" method which is cheaper than direct experimentation using the real system. In business, the process of experimenting with a model usually consist of inserting different input values and observing the resulting values.

Why use simulation

Used where analytical techniques are not available or would be very complex. It is used in most queuing systems, inventory control problems, production planning problems, corporate planning etc.

Simulation often provide an insight into a problem which would be unobtainable by other means.

Variables in a simulation model

a) Input variables – these are grouped further into;

i) Controlled input variables

These are variables which can be controlled by management like reorder level or reorder quantity in a stock control system.

ii) Non controlled input variables

They are variables not controlled by management like the demand of goods in a stock control system.

b) Parameters

These are input variables which have a constant value and are used to specify the relationship between other variables.

c) Status variables

These are general circumstances of a system which may affect the output such as times or seasons. For instance demand in a queuing system like supermarket is greatly influenced by the season of the year.

d) Output variables

These are the results of simulation. They arise from the calculations and tests performed in the model using input variables, parameters and status variables.

The following table summarizes the types of simulation variables.

VARIABLES USED IN SIMULATION		
INPUT VARIABLES	Controlled Variables	**Examples** ⇒ Reorder ⇒ Reorder quantity
	Non controlled variables	**Examples** ⇒ Demand
PARAMETERS		**Examples** ⇒ Cost of stock out Loss of good will Loss of customers
STATUS VARIABLES		
OUTPUT VARIABLES		

Business models

A model is any representation (physical or abstract) of a real thing, event or circumstances. In business planning, abstract or symbolic models are used and represent reality in numeric, algebraic or graphical form. Another definition for a model is an intelligent representation of reality developed to help forecast what might happen when an existing operation is enlarged or has extra demands made on it. b) Format all the text in the document as follows;

Font – Arial

Font size – 13pts **(4 Marks)**

c) Apply a hanging indent style to the first paragraph and 1.5 lines for line spacing **(4 Marks)**

d) Insert a footnote to the word simulation (The heading) as follows;

1.Using models of real objects, events or circumstances to study their behavior **(3 Marks)**

e) Adjust page margins of the entire document as follows;

Left – 0.7 inches

Right – 0.5 inches

Top – 0.4 inches

Bottom - 0.4 inches

Also set the paper size to A4

f) Save the document as simulation 2. **(2 Marks)**

g) Move all text starting from "variables in a simulation model" to the end of the table from the current document to a new blank document, and save it as model variables. **(7 Marks)**

N/B: Don't save the changes in simulation 2

h) Print simulation 2 and model variables **(4 Marks)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 3

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES:

- *Answer **ALL** the questions in section **A.***
- *Answer question **16(compulsory)** and any other **THREE** questions from section **B**.*

FOR EXAMINERS USE ONLY

	Section	Question	Score	
	A	1 – 15		
	B	16		
		17		
		18		
		19		
		20		
		TOTAL SCORE		

SECTION A (40 MARKS)

Answer all the questions in this section

1. State ***four*** different parts that make up a computer. **(2 Marks)**
2. **a)** What is meant by the term spyware? **(1 Mark)**
   b) State ***two*** ways of acquiring software.
3. Briefly explain the emerging trends in micro computer technology in relation to size. **(1 Mark)**
4. **a)** Distinguish between impact and non impact printers. **(2 Marks)**
   b) MICR and **OMR**
5. Describe the following terms
   a) Webpage **(1 Mark)**
   b) Blog **(1 Mark)**
   c) Hyperlinks **(1 Mark)**
   d) Web portal
6. List ***four*** stages of data collection. **(2 Marks)**
7. Explain the role of the following ICT specialist
   a)Computer technician**.** **(2 Marks)**
   b) Information systems manager. **(2 Marks)**
8. a) Give ***four*** advantages of DTP over a word processor. **(2 Marks)**
   b) Differentiate between the following
   i) Kerning and tracking **(2 Marks)**
   ii) Margins and column guides **(2 Marks)**
9. Distinguish between defragmentation of a disk and partitioning of a disk with reference to operating systems **(2 Marks)**
   Partitioning
   Defragmentation
10. Headache, back and neck pain may result from use of computers. State how each of them can be minimized **(2 Marks)**
    i Headache
    ii Back and neck pain
11. Explain the meaning of the following terms as used in computer programming.

(2 Marks)

i) Syntax

ii) Semantics

12. a) State ***two*** methods or tools that an analyst may use in a system design task.

(2 Marks)

b) Give ***two*** reasons why documentation must be done at each phase in system development cycle.

(2 Marks)

13. Explain the functions of the following network devices. **(2 Marks)**

Router

Gateway

14. Differentiate between baseband and broadband signal as used in networking

(2 Marks)

a) Baseband signal

b) Broadband signal

15. Define the term simulation **(1 Mark)**

SECTION B (60MARKS)

Answer question 16 and any other three questions from this section

16. Kazungu house-ware suppliers pays 10% commission on sales that are above Kshs.20,000 and 4% on any sales that are less than this target. If the sales salesman sells in cash, he gets an extra 5% commission on total sales, else no commission if on credit. **(7 Marks)**

a) Write a Pseudo – code for a program that would;

i. Prompt a user for sales, terms of sale, and name of salesman/lady.

ii. Calculate the commission and total amount.

iii. Display the commission and total amount for a particular salesman.

b) Draw a flow chart for the above Pseudo – code **(8 Marks)**

17. a) What is the hexadecimal equivalent of 747_8 **(3 Marks)**

b) Use one's compliment to solve the following sum: **(2 Marks)**

-6_{10}

c) State ***two*** reasons for using binary system in digital technology. **(2 Marks)**

d) Explain the term attenuation as used in networking. **(2 Marks)**

e) Explain the following terms as used in fibre optic cables. **(4 Marks)**

i) Single mode

ii) Multi-mode

f) Convert 7.125_{10} to its binary equivalent. **(2 Marks)**

18 **i)** Name ***four*** data types used in spreadsheets. **(2 Marks)**

ii) Outline ***five*** advantages of an electronic spreadsheet over the traditional ledger. **(5 Marks)**

iii) What is a chart wizard in spreadsheets? **(1 Mark)**

iv) Name and explain the use of the following commands found in the spell check dialog box in reference to word processing **(6 Marks)**

a) Change

b) Ignore once

c) Add

v) What is a template in word processing? **(1 Mark)**

19 i) Describe ***three*** ways in which computers have positively impacted on education. **(3 Marks)**

ii) The traffic lights serve as output devices for a computerized traffic system. Name the appropriate input device for this system. **(1 Mark)**

iii) State ***three*** advantages of computer based simulation. **(6 Marks)**

iv) Differentiate between a software engineer and a computer engineer. **(2 Marks)**

v) Name ***three*** duties that are carried out by a web administrator. **(3 Marks)**

20 . i) List and briefly describe ***three*** components of a database system. **(3 Marks)**

ii) Define the following terms as used in a database

a) Attribute **(1 Mark)**

b) Database model **(1 Mark)**

c) Macro **(1 Mark)**

iii) Explain ***three*** types of database models. **(6 Marks)**

iv) State ***three*** objectives of normalization. **(3 Marks)**

NAME……ADM NO……

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DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 3

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

This paper has two questions
*Answer **All** questions*
All questions carry equal marks.
Use
*Insert your **name** and **index number** as headers on all your documents*
Make a print out of the answers on the answer sheets provided
Hand in the print outs and the diskette

QUESTION ONE

a) Type the following letter as it appears in a word processor. Use the mail merge feature to produce copies of the same letter to the persons whose details are given below. **(7mks)**

BUIAMBO GIRLS HIGH SCHOOL P.O,BOX 21 BULIMBO 8TH JULY 2011

<NAME>, <ADMNO>

<ADDRESS>

<TOWN>

Dear <NAME>

REF: 2010 KCSE RESULTS.

I am happy to inform you that the NOV —DEC examinations are out. Kindly arrange to visit our school on <Date to visit> at 9.00 a.m. in order to know the details. Remember to carry your original KCPE certificate and examination registration card- bearing the index number.

Your's truly.

Headteacher

Data source (List of Candidates)

Name	Adm. No	I Address	Town	Date to visit
Wakhu Abigael	8074	P.O BOX 24	Eldoret	02/03/06
Wabomba Anjela	8189	P.O BOX 172	Bungoma	08/0308
Musita Annastancia	8065	P O BOX 84	Butere	24 /03/08

***Required*:**

i) Save Main document as Main Doc **(1mk)**

ii) Save Data source as Datasource **(l mk)**

iii) Change the addresses and reference font size to 1 4pts. **(¼ mk)**

iv) Underline the reference **(½ mk)**

v) Merge the letter onto main document so as to produce copies for all the three candidates and save it as 'Results 2007'. **(6mks)**

vi) Print the letters. **(3mks)**

b) Type the following text in a word processing software. **(l0mks)**

INTRODUCTION TO COMPUTERS & OPERATING SYSTEMS

A computer is a machine or an electronic device that can solve problems by accepting data, performing certain operations on that data (processing) and presenting the results of those operations (Information) Basic characteristics that distinguish a computer from other information processing devices:

(i) A computer is electronic — That is, all its processing operations are carried out with electrical signals

(ii) A computer can store information for future reference. This is done on temporary basis with memory circuits and permanently with storage devices such as magnetic disks and tape.

(iii) A computer is programmable — unlike other devices built to perform a single function, a computer can he instructed or programmed to perform a variety of tasks.

HOW A COMPUTER OPERATES

Converting the data (raw facts) into information (Organized, usable form) is called data processing. Data get into the system by means of an input device. e.g keyboard then the computer performs the necessary calculations or manipulations on the data and finally the organized information is displayed by an output device e.g a monitor.

FUNCTIONS PERFORt1'IED BY A COMPUTER

Although computers have many applications, they can perform only three basic tasks.

(i) Arithmetic functions on numeric data (adding, subtracting. multiplying and dividing)

(ii) Test relationships between data items (by comparing values) (iii) Store and retrieve data

These skills are really no more than people can do, but the computer can accomplish the task more;

Faster
Accurately
Reliably

Required:

a) Align the title to the center and underline it **(1mk)**

b) Add border to the title. **(2mks)**

e) Replace all the Roman numbers with bullets. **(1mk)**

d) i) Insert the footer "Computer Districts Mock 20()8". **(2mks)**

ii) Insert the header "Your name and index No" **(2mks)**

e) Set the line spacing to exactly 1.5 **(2mks)**

f)Insert word Art "COMPUTER" and set it to appear behind the text. **(3mks)**

g) Search for words "Computer" and replace all with "PC". **(2mks)**

h) Move paragraph with the heading "how a computer operates' to the end of the document. **(2mks)**

i) Set the font style of the document to Anal black **(1mk)**

j) Save your work as "computer Literacy" **(l mk)**

k) Print your document. **(1mk)**

2. (a) Create a new workbook and name it as form 2 computer Exams. **(1mk)**

Name	**Class**	**Adm. No:**	**CAT 1**	**CAT 2**	**CAT 3**	**Total**	**Average**	**Class Position**	**Remark**
Keya Beverly	E	7984	80	70	59				
Abonyo Ann	W	7896	75	55	72				
Baraka Jedida	E	8092	86	59	75				
Alenge Catherine	E	7460	80	79	70				
Musihega Carren	W	7892	76	75	80				
Hassan Eunice	E	7800	38	48	25				
Soita Naomi	W	8490	37	5 1	29				
Wafula Phanice	W	8184	30	86	75				
Sisa Gentrix	E	8082	25	27	20				
Waithera Scolastica	E	8083	30	25	25				

Siboboti Sarah	W	8047	39	24	25				

(b) Enter the fo1lowng data in sheet I **(20mks)**

(c) Rename the sheet as Term one results. **(1mk)**

(d) Find:

i) Totals **(2mks)**

ii) Average **(2mks)**

(e) Use the IF function to award remarks as follow **(3mks)**

A student whose average is above or equals 65 is given "Excellent"

An average of 55 or above but less than 65 award "average work"

An average less than 55 award "work below average"

f)i) Award position to student basing on the average scored. **(3mks)**

ii) On the last rows enter formulas to count students from both classes. (**2mks)**

(g) Sort the students list by class position in ascending order. **(2mks)**

i) Copy the entire worksheet onto sheet 2 and rename it "lower group" **(2mks)**

ii) Filter "Lower group" sheet to display students from "E" class and whose average score is below 50. **(4mks)**

(i) Draw a bar graph to display the following information. **(3mks**)

- The three cats
- Names
- Title as **"TERM ONE COMPUTER RESULTS"**

i) Place the legend at the bottom of the graph **(lmk)**

ii) Save the chart on a new sheet and name it graphical analysis **(lmk)**

(j) Print:

i) The filtered lower group. **(lmk)**

ii) The chart (l**mk)**

iii) Term one results sheet **(1mk)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 4

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES:

- *Write **your Name** and **Index Number** in the spaces provided at the top of this page.*
- ***Sign** and **write** the date of examination in the spaces provided above*
- *This paper consists of two section**; A** and **B.***
- *Answer question **16** and **any other three questions** from section **B** • All answers should be written in the spaces provided on the question paper*

FOR EXAMINERS USE ONLY

Section	Question	Score
A	1 – 15	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

SECTION A (40 MARKS)

Answer all the questions in this section in the spaces provided

1. The computer processing cycle involves a four step process List them**.** **(2mks)**

2. The CPU consists of control unit and arithmetic logic unit State the functions of the two units. **(2mks)**

3. Name and explain the two types of primary memory.

4. State the functions of the following keys in a computer key board

(i) Pause **(lmk)**

(ii) Function keys **(lmk)**

5. **(i)**Explain the importance of microphones combined with speech recognition device such as voice output. **(2mks)**

(ii) State the main disadvantage of the above method of data input. **(2mks)**

6. The most popular type of electronic data storage currently is magnetic disk storage such as hard disk or Winchester disk. Give reason as to why they are popular **(2mks)**

7. Outline ***two*** advantages of hard disk over floppy disk. **(2mks)**

8. One stage of system development is system testing. Outline the advantages of this stage before implementation. **(1mk)**

(a) Convert 111,011 2 to a decimal notation. **(2mks)**

(b) State ***one*** advantage of using binary number system in computers. **(1mk)**

9. State one function of each of the following terms. **(3mks)**

(i) Buffer

(ii) An accumulator

(iii) Cache memory

(iv) When using wizard to create a form. list four forms layout that you can use, **(2mks)**

15. Distinguish between the following terms as used in DTP **(4mks)**

(i) Tracking and kerning

(ii) Stroke and fill

SECTION B (60 MARKS)

Answer question 16 and any other three questions from this section

16.(a) Define the following terms

(i) Structured programming **(1mk)**

(ii) Constants **(1mk)**

(iii) Variable **(lmk)**

(b) Distinguish between dummy data and real data as used in system testing **(2mks)**

(c) Mr. Nyongesa borrowed a loan of 200,000 from Ndege chai cooperative society at a rate of 10%payable in 2 years flat rate. Draw a flow chart that can be used to develop a computer program that will keep track of monthly repayments **(5mks)**

(d) Write the pseudocode for the flowchart in question (c) above. **(5mks)**

16. (a) Define the following computer crimes

(i) Piracy **(lmk)**

(ii) Industrial espionage **(lmk)**

(b) Explain ***two*** ways of protecting data and information against unauthorized access **(4mks)**

(c) Explain ***two*** functions of network operating system. **(4mks)**

(d) Differentiate between a repeater and a router as used in computer networking. **(2mks)**

(e) List down ***three*** duties of a computer trainer **(5mks)**

17. (a) Explain any ***two*** types of human computer Interface. **(4mks)**

(b) State ***four*** basic requirements of a standard computer laboratory **(4mks)**

(c) Out line ***three*** types of job opportunities that are available in the computing field **(3mks)**

(d)(i) Differentiate between video conferencing and telecommuting as used in communicating System. **(2mks)**

(ii) Highlight ***two*** advantages of telecommuting. **(2mks)**

18. (a) Distinguish between the following

(i) Sequential and serial file organization methods. **(2mks)**

(ii) Random and indexed sequential tile organization methods **(2mks)**

(b) Explain the following types of data processing modes

(i) Batch processing **(2mks)**

(ii) Real time processing **(2mks)**

(c) Define the following terms

(i) Undo **(1mk)**

(ii) Redo **(lmk)**

(d) State ***three*** breakthrough of Information Communication Technology (ICT) in health care **(3mks)**

(e) List any ***two*** under graduate programs offered in public universities in Kenya **(2mks)**

19. **(a)** Draw a flowchart showing;

(i) The WHILE loop **(2mks)**

(ii) The REPEAT UNTIL loop **(2mks)**

(b) Differentiate between the following terms

(i) Information system and system **(2mks)**

(ii) Hard system and soft system. **(2mks)**

(c) List the ***seven*** stages of System Development Cycle (SDLC) **(7mks)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 4

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES.

- *Type your **name** and **index** number at the top right hand corner of each printout.*
- *Sign and write the date of the examination below the name and index number on each printout.*
- *Write your name and index number on the compact disks*
- *Write the name and version of the software used for each question attempted in the answer sheet.*
- *Passwords **should not** be used while saving in the compact disks*
- *Answer all the **questions***
- *All questions carry equal marks.*
- *All answers **must** be saved in your compact disks*
- *Make a printout of the answers on the answers sheets provided.*
- *Hand in **all** the printouts and the compact disks*

Answer all questions

1. **(a)**Create a database called **SCHOOL**. **(2 Marks)**

(b) Create three tables Examination, **DOS** and **BOARDING** with the fields as shown below.

(10 Marks)

(c). Create a relationship between the three tables and enforce integrity**.** **(6 Marks)**

(d). Enter the data items in the given tables three tables. **(15 Marks)**

		Examinations				
Admission Number	**Mathematics**	**English**	**Kiswahili**		**Biology**	
1	45	67		90		23
10	45	89		90		20
2	45	70		80		45
3	89	90		90		20
4	78	9		90		50
5	67	89		60		90
6	67	90		7		80
7	34	78		70		90
8	23	50		38		90
9	23	15		67		20

		DOS			
Admission Number	**SName**	**Other Names**	**KCPEMark**		**Year of KCPE**
1	PETER	BARASA		327	2007
10	JOHNSON	SUK		250	2001

2	ALEX	OJWANG'		340	1998
3	CHEPKUTO	ESTHER		250	2008
4	WEKESA	RAYMOND		450	2007
5	ALEX	WAMWANA		410	2003
6	JANE	KILONZO		400	2000
7	MATHEW	KARIUKI		450	1999
8	NASIMIYU	CATHEEN		290	2003
9	KIMATHI	JOHN		3000	2001

	BOARDING			
Admission Number	**UNIFORM**	**TOOL**		**TOOL NAME**
1	No		12	JEMBE
10	Yes		20	JEMBE
2	No		11	PANGA
3	Yes		1	SLASHER
4	Yes		111	JEMBE
5	No		15	RAKE
6	Yes		22	BASIN
7	Yes		11	BROOMS
8	Yes		90	RAKE

9	Yes		23	BUCKET

(e) Design a query that would display the following fields as shown below and write down the formulae for getting the total score and criteria for extracting the records below **(10 Marks)**

	Admin						
Admission Number	UNIFORM	SName	KCPEMark	Mathematics	English	Kiswahili	TOTAL SCORE
1	Yes	CHEPKUTO	250	89	90	90	269
10	Yes	WEKESA	450	78	9	90	177
2	Yes	JANE	400	67	90	7	164

(f) Design a report that would sort the following in ascending order in the order of the following fields, Total score, KCPE Score, SName the Admission Number and the report should display all the fields. Save the report as administration. **(5 Marks)**

(g) Print, administration and admin**.** **(2 Marks)**

Q2. Using a word processing package, type the text as shown below **and** save it **as Computers (35 marks).**

Chapter 1: Introduction to Computer

Chapter 1: Introduction to Computers

OBJECTIVES

- After completing this chapter, students will be able to.
- Explain why it is important to be computer literate
- Define the term computer
- Identify the components of a computer
- Explain why a computer is a powerful tool
- Differentiate among the various categories of software
- Explain the purpose of a network
- Discuss the uses of the Internet and the World Wide Web
- Describe the categories of computers and their uses

CHAPTER OVERVIEW

This chapter presents a broad survey of concepts and terminology related to computers. The idea of computer literacy is introduced. Students discover what a computer is and what it does. They learn about the components of a computer, the power of computers, computer software and networks and the internet. Categories of computers are identified, including personal computers, minicomputers, mainframe computers and super computers. Students find out how people employ computers from home users to large business users. Finally they learn how people use computers to provide information. Reading and understanding the material in this chapter should help students better understand these topics as they are presented in more detail in the following chapters.

The vocabulary of computing is all around you. Before the advent of computers, memory was the mental ability to recall previous experiences; storage was an area where you kept out-of-season clothing; and

communication was the act of exchanging opinions and information through writing, speaking, or signs. In today's world, these words and countless others have taken on new meanings as part of the common terminology used to describe computers and their use.

When you hear the word computer, initially you may think of those found in the workplace - the computers used to create business letters, memos, and other correspondence; calculate payroll; track inventory; or generate invoices, In the course of a day or week, however, you encounter many other computers. Your home, for instance, may contain a myriad of electronic devices, such as cordless telephones, VCRs, handheld video games, cameras, and stereo systems that include small computers.
Computers help you with your banking in the form of automatic teller machines (ATMs) used to deposit or withdraw funds. When you buy groceries, a computer tracks your purchases and calculates the amount of money you owe; and sometimes generates coupons customized to your buying patterns.

Even your car is equipped with computers that operate the electrical system, control the temperature, and run sophisticated antitheft devices.

Computers are valuable tools. As technology advances and computers extend into every facet of daily living, it is essential you gain some level *of computer literacy*. To be successful in today's world, you must have a knowledge and understanding of computers and their uses.

(a). Hang indent the paragraph starting with 'the vocabulary of computing.....'by 2 cms. **(3 Marks)**

(b). Change the line spacing of text under 1.1 . Computer literacy to 2" and save the document as : Literacy. **(4 Marks)**

(c). Change the title' **Chapter 1: Introduction to Computers** 'to toggle case **(2 Marks)**

(d). Animate the OBJECTIVES to have a blinking background save as A; Blink **(3 Marks)**

(e) Print **Computers** and : **Literacy.** **(2 Marks)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 5

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

-Write your name and index number in the spaces provides above -----Sign and write the date of examination in the spaces provided This ---paper contains two section: Section A and B.

-Answer all questions in section A.

-Answer question 16 (Compulsory) and any other THREE questions in section B.

-All answers should be written in the spaces provided in the question paper

FOR EXAMINER'S USE ONLY.

SECTION	QUESTION	CANDIDATE SCORE
A	1-15	
B	16	
	17	
	18	
	19	
	20	
TOTAL SCORE		

This paper consists of 8 printed pages. Candidates should check the question paper to ensure that all the papers are printed as indicated and no questions are missing

SECTION A (40 MARKS)

Answer ALL the questions in this section in the space provided.

1. (**a)** State the purpose of registers in a computer system. **(1mk)**

(b) Name two types of registers found in the central processing unit. **(lmk)**

2. State two practices to be observed in order to ensure the safety of the computer user **(2mks)**

3. List four stages in data collection **(2mks)**

4. **(a)** State two importance of internet to society. **(2mks)**

(b) Describe two challenges that internet has brought to society. **(2mks)**

5. **(a)** Define portability as used in software selection **(lmk)**

(b) List four ways of acquiring software in an organization **(2mks)**

6. **(a)** Subtract 110_2 from 11010_2 **(lmk)**

(b) Find the sum of binary number 101.101_2 and 110.100_2 **(lmk)**

7. Outline two major functions of UPS in computer Iaboratory. **(2 marks)**

8. **(a)** Define virtual reality. **(1 mark)**

(b) List any two applications of virtual reality. **(1 mark)**

9. **(a)** List three ways by which you can provide a common link or relationship between the table in a database software **(3mks)**

(b) What is referential integrity **(1 mk)**

10. Differentiate between **SRAM** and **SDRAM** **(2mks)**

11. State two advantages and ***two*** disadvantages of impact over non-impact printers. **(4mks)**

12. State two advantages of **USB** port over the parallel port **(2mks)**

13. List down two examples of High level language (HLL) and state its most appropriate application. **(2mks)**

14.(a) Differentiate between a logical file and a physical file. **(2mks)**

(b) Name four types of computer files. **(2mks)**

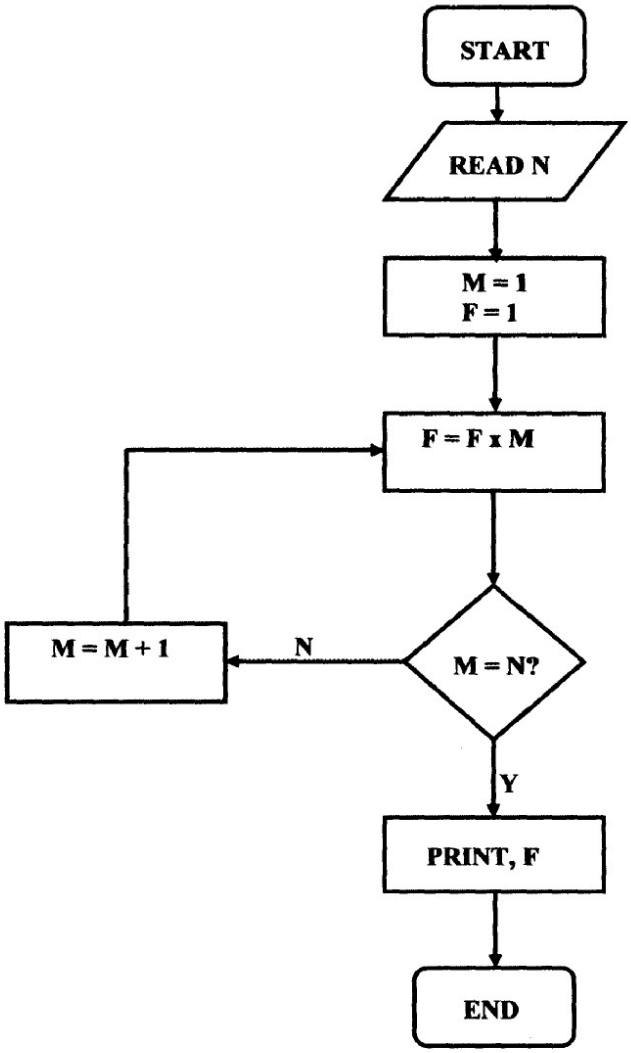
15.a). Define the term mail merging **(1 Marks)**

b). Name **two** files that are created in mail merging process **(2 Marks)**

SECTION B (60 MARKS)

Answer question 16 and any other three questions from this section in the spaces provided.

16. Study the flow chart below and answer the questions that follow



(a) What would the flow chart generate as output if the value of N at input was

(i) 6? **(2mks)**

(ii) 1? **(2mks)**

(c) Write a Pseudo code that does the same thing as the chart above. **(7mks)**

(d) Modify the flow chart so as to reject an input below 0 and to avoid looping when the input is? **(4mks)**

17. (a) State any three duties of the following ICT personnel.

(i) Systems analyst. **(3 marks)**

(ii) Database administrator. **(3 marks)**

(iii) Web master **(3 marks)**

(b) Name any three ICT courses offered in the Kenyan universities. **(3 marks)**

(c) Outline three advantages of telecommuting. **(3 marks)**

18 (a) The formula = K20 + P $ 18 was typed in cell L21 and then copied to cell M24 of a spreadsheet. Write the formula as it appears in cell M24. **(2mks)**

(i) Define the term spreadsheet. **(1 mk)**

(ii) Give ***two*** examples of spreadsheet packages available in the market today. **(2mks)**

(iii) Explain the following terms as used in a spreadsheet.

What IF analysis **(2mks)**

Cell **(lmk)**

Formula **(lmk)**

Pie-chart **(lmk)**

(c) Distinguish between the following sets of terms used in spreadsheet.

(i) Worksheet and workbook **(2mks)**

(ii) Filtering and sorting **(2mks)**

(d) State one way in which a user may reverse the last action taken in a spreadsheet package**.** **(lmk)**

19. (a) Define artificial Intelligence. **(1 mark)**

(b) Explain the application of artificial intelligence in the following areas. **(6 marks)**

(i) Natural language processing

(ii) Robotics

(iii) Expert systems

(b) Give any three symptoms of the following computer work-related disorders and two of their methods of prevention.

(i) Computer vision syndrome. **(4 marks)**

(ii) Repetitive strain injuty. **(4 marks)**

20. **(a)** Define the term ergonomics **(1 mark)**

(b) **(i)** Give any three advantages of using a fibre optic cable in data transmission. **(3 mks)**

(ii) Name two types of fibre optic. **(1 mark)**

(c) State three advantages of wireless communication. **(3 marks)**

(d) Explain the following terms. **(3 marks)**

(i) Multiplexing

(ii) Bandwidth

(iii) Baseband signal

(e) Explain the use of these communication devices. **(4 marks)**

(i) Routers

(ii) Hub

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 5

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

-Type your name and index number in the spaces provides above
-Sign and write the date of examination in the spaces provided in the answer sheet Password should not be used while saving in the Compact disk.
-Answer all questions.
-Make a print of the answer sheet provided -
-Hand all the print out and the Compact disk.

QUESTION ONE (50 MKS)

(a) Create a database in the floppy disk named BORA UNIVERSITY COLLEGE. **(2mks)**

(b) Create a table with the following fields using appropriate data types: Adm No, First Name, Last Name, Course, Date of Admission and Completed. Set Adm No as a Primary key .Save it as STUDENTS DETAILS **(6mks)**

(c) Create a Columnar form that would be used to enter data into STUDENTS DETAILS and save it as STUDENTS DATA ENTRY. **(2mks)**

(d) Use the above form to enter the following data into the database. **(6mks)**

Adm No.	First name	Last name	Course	DOA	Completed
3224	John	Flora	IMIS	12/01/2010	Yes
4455	Mary	Mutua	Accounts	24/12/2009	Yes
6677	Benard	Maingi	French	15/5/2010	No
7760	David	Naja	IMIS	0./04/2010	No
2312	Evy	Danson	French	23/8/2009	Yes
6547	Joy	Kelly	IMIS	4/3/2010	No
6579	Mwangi	Sam	IMIS	18/4/2010	No

(e) Create a table named 'FEE PAYMENT' in the same database to contain Adm No, Fee Paid and Receipt No. **(5mks)**

(f) Link STUDENTS DETAILS table to FEE PAYMENT table**.** **(2mks)**

(g) Enter the following details directly into the FEE PAYMENT table. **(2mks)**

Adm No.	Fee paid	Receipt number
3224	12000	100
4455	30000	121
6677	30000	152
7760	25000	134
2312	30000	145
6547	23000	124
6579	30000	150

(h) Create a query to display the following details: Adm no, First name, Last name, Fee paid.
Save as FEE PAID. **(5mks)**

(i) Display a list showing the Last name and the Fee balance for all students who owe the college over 10,000/= given that the total fees for each course is 30,000. Save as SEND
HOME. **(5mks)**

(j) Certificates are to be given only those who have completed their course and have paid the full amount. Create a query, having the Adm No, First name, Last name and course for all students to be awarded the certificates. Save as GRADUANTS. **(5mks)**

(k) Prepare reports for STUDENTS DETAILS, FEE PAYMENT, FEE PAID, SEND HOME,

GRADUANTS. **(5mks)**

(I) Print the reports in (I) above. **(5mks)**

QUESTION 2(50MKS)

PK is new transportation company. The managing director would like to produce an advert to enable him to reach out to local towns.

a). Prepare a publication layout with the following specification:

(i)	Paper size	A4
(ii)	Orientation	Portrait
(iii)	Number of pages	1
(iv)	Margins	0.5 inches all round
(v)	Create column guides to subdivide the page into two columns	
(vi)	Space between columns	0.3 inches **(6mks)**

b). Produce the publication as shown in the sample. All the text are in **Times New Roman** size **12** except.

(a)	PK in the logo	**Size 28**
(b)	Unbeatable	**Size 20**
(c)	You can't compare	**Size 14**
(d)	Working hours	**Size 22**
(e)	Passenger Ticket shading is **Accent 4**	
(f)	Fill pattern for working hours is **5%**	**(44mks)**

UNBEATABLE TRANSPORT SERVICES

PK bus services is intended to change your traveling style. We offer the best services you can ever have: get refreshed all through the journey; watch movies as you travel; read newspapers and enjoy world class services of our caring staff.

YOU CAN'T COMPARE

PK TRANSPORT LIMITED			
FROM	TO	AMOUNT (Kshs)	SAFE TRAVEL
MALINDI	Likoni	400	
	Ukunda	450	
	Bamburi	420	
	Nyali	400	

WORKING HOURS
ALL DAYS
6.00 A.M TO 10.00 P.M
5.30 a.m TO 11.30 p.m

Our offices
Are situated at Keron centre
Along Kwale road near Kuwaka shop.

MALINDI MOMBASA UKUNDA

NAME:_____
FROM MALINDI:_____
TO:_____
SEAT NUMBER:_____

AMOUNT
DEPARTURE TIME

PASSENGER TICKET

PK BUS SERVICES

P.O. BOX 12345-02200
Malindi-Kenya
Cell: 0723 567 234

SAMPLE

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 6

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTION TO CANDIDATES

- *Write your name and index number in the spaces provided above*
- *This paper consists of **Two** sections **A** and **B***
- *Answer **ALL** questions in section **A***
- *Answer question16 and any other **THREE** questions from section **B***
- *All answers should be written in the spaces provided on the question paper*

FOR EXAMINER'S USE ONLY

SECTION	QUSTIONS	CANDIDATE'S SCORE
A	1 -15	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

SECTION A (40 MARKS)

Answer ALL the questions in this section

1.State the technology used in the following computer generations **(2mks)**

i)4th generation:

ii)1stgeneration:

iii)2nd generation:

iv)3rd generation:

2.Outline ***two*** areas that should be considered when categorizing software. **(1mk)**

3.State any ***three*** disadvantages of a magnetic diskette**.** **(3mks)**

4. a) Define the data processing. **(1mk)**

b) Explain ***two*** characteristics of good information. **(2mks)**

5 . Distinguish between data verification and data validation. **(2mks)**

6. Describe the following menu tools as used in Ms. Word **(2mks)**

i) Print layout:

ii) Web layout:

7.Define the following terms as used in mail merging (**4mks)**

i) Main document:

ii) Data source

8. a)Difference between real –time system and online systems. **(2mks)**

b) Explain how information and communication technology has contributed to teaching and learning in schools. **(2mks)**

9. a) State the use of the following network devices. **(2mks)**

i) Network interface cards

ii) Routers

iii) Distinguish between thinnet and thicknet coaxial cables. **(2mks)**

10. Convert (111.010_2) to decimal number. **(3mks)**

11. Explain the type of errors that are likely to exist in a program? **(4mks)**

12. State **three** ways in which **ICT** can be used in industrial control. **(3mks)**

13. State **two** reasons why it is necessary to have well connected and proper cables in a computer lab **(2mks)**

14. What do you understand by the term '**soft system**'' in a system development?

(1mk)

15. What is a relational database **(1mk)**

SECTION B (60 MARKS)

Answer question 16 and any other THREE questions from this section in the spaces provided

16 .Mumias sugar company pays casual employees based on the number of hours worked as follows

Less than 10 hours @ khs.100/= per hour

Up to 15 hours @ khs150/= per hour

More than 15 hours @khs200/= /per hour

a) Write a pseudo code to input the name, rate hours worked. The pseudo code should output the name,hours worked and the wage paid. **(6mks)**

b) Draw a flowchart for the above pseudo code . **(5mks)**

c) Write brief notes on structured programming **(4mks)**

17 a) List ***four*** characteristics of a system **(2mks)**

b) Give any ***three*** circumstances that may make an organization to develop a new information system **(3mks)**

c)Study the spreadsheet below and answer the questions that follow

	A	B	C	D
1	WESTLINK COMPUTER BOOKS CENTRE			
2	TITLE	PRICE	NO. SOLD	COST
3	Computer longhorn book2	320	25	

4	Visual basic (6) turbo	820	21	
5	Computer longhorn book4	350	100	
6	Computer science	900	12	
7	Computer Applications	845	36	
8	Computer hardware	1250	10	
9	Computer software	1250	27	
10				

i) Write down the formula used to find the price of the cheapest book. **(1mk)**

ii) Write down the formula used to determine the total sales for the book titled' computer applications **(1mk)**

iii) Write down the formula used determine the average price of the all books **(2mks)**

d)State any ***four*** advantages of using an electronic spreadsheet as compared to a traditional spreadsheet. **(2mks)**

e)Differentiate between a column chart and a bar chart as used in spreadsheets **(4mks)**

f)Define the term gutter in relation to column setting in DTP **(1mk)**

18. a) Name and describe four main application areas of artificial intelligence in ICT **(12mks)**

b) State **three** advantages of automated production in manufacturing industries. **(3mks)**

19 a) Describe any **two** roles of the following career opportunities in the ICT field **(8mks)**

i) Systems analyst
ii) Information system manager
iii) Network administrator
iv) Computer trainer

b) Distinguish between a primary key and a foreign key as used in DBMS. **(2mks)**

c) What do the term header and footer mean? **(2mks)**

d) What do you understand by the terms attenuation and baseband signal**.** **(2mks)**

20. a) Define the following terms. **(3mks)**

i) Record

ii) File

iii) Database

b) i) List any ***three*** ways of dealing with a virus on a computer. **(3mks)**

ii) Explain the functions performed by **(2mks)**

a) The control unit

b) Arithmetic and logic unit (ALU)

c) Convert the 522^{8} to its base 10 equivalent **(2mks)**

d) Using long division methods convert 67_{10} into binary. **(2mks)**

e) Outline ***three*** disk management activities. **(3mks)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 6

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES.

- Type your name and index number at the top right hand corner of each print out and on your CD.
-Write the version of software used for each question attempted

*Answer **all questions***

- Write your name and index number on the CD
-Password **should not be** used while saving
-All questions carry equal marks
-Hand in all printouts and the CD.

FOR OFFICIAL USE

Question	Maximum score	Student score
1	50	
2	50	

Total	100	

1. The information below was extracted from CMC vehicle selling business

Buyer Name	Buyer Address	Buyer Town	Vehicle Reg NO	Vehicle Type	Vehicle Make	Vehicle price	Buyer Number	Amount paid
peter	254	Nakuru	KAJ 001	Matatu	Nissan	1200000	B001	800000
john	678	Eldoret	KAJ 002	Bus	Mazda	2400000	B002	2000000
Ken	963	Nairobi	KAJ 003	Saloon	Toyota	800000	B003	600000
Peter	147	Nakuru	KAJ 004	Pick up	Peugeot	1000000	B004	700000
Roy	456	Bungoma	KAJ 005	Lorry	Isuzu	3000000	B005	2000000
Glen	789	Webuye	KAJ 006	Pick up	Toyota	1800000	B006	1600000
John	678	Eldoret	KAJ 007	Bus	Scania	7500000	B002	7500000
Ken	963	Nairobi	KAJ 008	Matatu	Toyota	1300000	B003	1300000
Phillip	159	Kisumu	KAJ 009	Saloon	Nissan	900000	B007	900000
Peter	254	Nakuru	KAJ 010	Pick up	Isuzu	1500000	B001	1200000
Ken	357	Kisumu	KAJ 011	Saloon	Peugeot	700000	B008	700000
Glen	789	Webuye	KAJ 012	Bus	Isuzu	10000000	B006	9500000

Peter	147	Nakuru	KAJ 013	Matatu	Nissan	2700000	B004	2700000

a) Create a database file named CMC **(2 marks)**

b) Using the information in the table, create a table to hold vehicle detail and another to hold buyer details. Name them **tblvehicle** and **tblbuyer** respectively (4 marks)

c) Enforce referential integrity between two tables. (2 marks)

d)Create different input screen for each table, giving them appropriate title. Name them **frmvehicle** and **frmbuyer**. Use them to enter data into the tables. **(12 marks)**

e)Display a report only showing the details of the buyers who have cleared paying for the vehicle. Name the report **rptcleared** with ''CLEARED BUYERS'' as the title of the report**.** **(10 marks)**

f)Using the two tables create an outlined report showing the customer details, the total amount paid by each customer and the total amount received by CMC during this time. Name the report **rptnilbal** and the title as 'SUMMARY REPORT PER BUYER.'' **(8 marks)**

g)Create a query to display the vehicle details with balances of less than 500,000 but not less than 300,000. Name the query as **qrymidbal.** **(7marks)**

h)Create a report showing the vehicle type, the total sales for each type and the grand total. **(3 marks)**

e)Print **tblvehicle, tblbuyer, rptcleared, and rptnilbal** and **qrymidbal** landscape orientation with footers being your last name and index number at the centre of the page. **(2 marks).**

2. Use a spreadsheet to manipulate data in the table below.

Adm. NO	Name	Stream	Comp	Art	Bus	Eng	Mat	STUDENT MEAN	RANK
C001	Barasa	H	56	45	36	56	26		
C002	Wangila	K	58	57	90	54	23		
C003	Wafula	H	48	56	54	45	25		
C004	Wanjala	K	78	95	78	46	24		
C005	Kerubo	H	49	86	68	35	52		

C006	Akinyi	K	56	45	25	63	54		
C007	Odhiambo	H	75	78	45	65	56		
C008	Okunyuku	K	89	69	65	53	51		
C009	Nekesa	H	69	58	45	54	52		
C010	Simiyu	H	85	46	78	52	53		
	TOTAL								
	TOTAL	FOR H							
	TOTAL	FOR K							

a) Enter the data in all bordered worksheet and auto fit all columns. Save the workbook as **mark1** **(15 mks)**

b) Find the total marks for each subject **(3 mks)**

c) Find total for each subject per stream using a function. **(5 mks)**

d) Find mean mark for each student using a function **(5 mks)**

e) Rank every student in descending order using the mean **(5 mks)**

f) Create a well labeled colum chart on a different sheet to show the mean mark of every student. Save the workbook as **mark2.** **(7 mks)**

g) Using **mark1**, use subtotals to find the average mark for each subject per stream. Save the workbook as **mark3** **(7 mks)**

h) Print **mark1, mark2,** and the **chart** **(3 mks)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 7

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the spaces provided above
2. This paper consists of **two** sections **A** and **B.**
3. Answer **ALL** questions in section **A.**
4. Answer question and any other THREE questions from section *B.*
5. All answers should be written in the spaces provided on the question paper.

FOR EXAMINERS USE ONLY

SECTION	QUESTION	CANDIDATES SCORE
A	1 - 15	
B	16	
	17	
	18	
	19	
	20	
	TOTAL SCORE	

1. State three classifications of micro computers when classified according to size.

(3mks)

2. Give three main advantages of using computers for data processing functions over other types of office and business equipments **(3mks)**

3. (a) What is disk partitioning? **(2mks)**

(b) Give two reasons for partitioning a disk. **(2mks)**

4. Give a reason for each of the following hardware considerations when selecting a computer

system **(2 mks)**

a) Processor speed.

b) Warranty.

c) Upgradeability and compatibility.

d) Portability.

5. Outline the functions of the following utility software **(3mks)**

(i) Loaders.

(ii) Debuggers.

(iii) Linkers.

6. Draw a diagram to illustrate the following**.** **(3mks)**

(i) USB Port.

(ii) Serial Port.

(iii) Parallel Port.

7. A computer operator in your school wanted to print a document but the printer could not print yet the online light is on and the printer paper is correctly placed. Give the other possible reasons why the printing process failed. **(2mks)**

8. Differentiate between office and magnetic scanning techniques and give two example of each. **(4mks)**

9. Define the following terms as used in word processing.

(i) Word wrap **(lmk)**

(ii) Thesaurus **(lmk)**

10. In a war torn countries such as Somalia, explosives that get buried under ground requires removal in order to provide safety for the people.

(a) Name a computer controlled device that would be used safely for detecting such explosives **(lmk)**

(b) Explain why you recommend the use of such a device in (a) above **(lmk)**

11. Explain briefly how Electronic Funds Transfer (EFT) and Electronic Point of Sale (EPOS) is used to facilitate business in Nakumatt supermarkets in Kenya (4mks)

12. The most popular type of electronic data storage currently is magnetic disk storage such as hard disk or Winchester disk. Give reason as to why they are popular

(2mks)

13. Outline two advantages of hard disk over floppy disk. **(2mks)**

14. One stage of system development is system testing. Outline the advantages of this stage before Implementation. **(1 mks)**

15. State three system changeover strategies **(3 mks)**

SECTION B (60 MARKS)

Answer question 16 and any other three questions from this section in the spaces provided.

16. **a)** Define the terminologies; **(4mks)**

i) Source code

ii) Object code

(b) With an aid of a pseudo code and flow chart, write a computer program that can be used to compare the values of two numbers and print the largest number. **(11 mks)**

17. **a)** Define the following terms. **(4 mks)**

i) Record

ii) File.

iii) Database

iv) field

(b) **i)** List any three ways of dealing with virus on a computer. **(3mks)**

ii) Explain the functions performed by: **(6 mks)**

a) The control unit

b) Arithmetic and logic unit (ALU)

c) Main memory:

iii) what is the difference between hacking and cracking **(2 mks)**

18 a) What is the hexadecimal equivalent of 7478 **(3 Mks)**

17. a) Define the following terms. **(4 mks)**

i) Record

ii) File.

iii) Database

iv) field

b) **i)** List any three ways of dealing with virus on a computer**.** **(3mks)**

ii) Explain the functions performed by: **(6 mks)**

a) The control unit

b) Arithmetic and logic unit (ALU)

c) Main memory:

iii) What is the difference between hacking and cracking **(2 mks)**

18. **a)** What is the hexadecimal equivalent of 7478 **(3 Mks)**

b) Use one's compliment to solve the following sum: **(2 Mks)**

c) State two reasons for using binary system in digital technology. **(2 Mks)**

d) Explain the term attenuation as used in networking. **(2 Mks)**

e) **i)** Explain the following terms as used in fibre optic cables (4 Mks)

i) Single mode

ii) Multi-mode

f) Convert 7.125_{10} to its binary equivalent. **(2 Mks)**

19 **i)** Describe three ways in which computers have positively impacted on education. **(3 mks)**

ii) The traffic lights serve as output devices for a computerized traffic system. Name the

appropriate input device for this system. **(1 Mk)**

iii) State three advantages of computer based simulation. **(6 Mks)**

iv) Differentiate between a software engineer and a computer engineer. **(2 Mks)**

v) Name three duties that are carried out by a web administrator. **(3 Mks)**

20. (a.) Explain three components of expert systems. **(6mks)**

(b.) Highlight two types of job opportunities available in the field of computer hardware **.** **(2mks)**

(c.) List any three internet service providers in Kenya **(3mks)**

(d.) Describe any four internet services **(4mks)**

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 7

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

*-Answer **All** questions*

- All answers must be saved in your CD.

*-Insert your **name** and **index number** as headers in all your documents -Make a print out of the answers on the answer sheets provided Hand in the print outs and the CD.*

QUESTION ONE

(a) Create a new database, save it on a removable storage medium and name it **school database**

(b) Create a Table in the *school database* with the following **(3mks)**

FIELD NAME	DATA TYPE	FIELD SIZE/FORMAT
ADM-NO	Text	10
Name	Text	15
Surname	Text	15
Tel - No	Number	Long Integer
Date of Birth	Date/time	Medium date
Fee – Paid	Currency	Currency
Foreigner	Yes/No	Yes/No

(c) Make the "ADM_Number" Field as the Primary Key **(2mks)**

(d) Save the table as Student's Table **(2mks)**

(e) Open the "Students Table" and enter the following records **(3mks)**

ADM - NO.	Name	Surname	Tel - No.	Date of Birth	Fee - paid	Foreigner
4567	John Maina	Muiru	55-67543	19/09/1990	25000	No
4576	Mary Nthenya	Mutua	44-23456	20/12/1991	27000	No
4398	Mark Okech	Otieno	22-65473	13/03/1992	20000	No
5678	Peter Rick	Ben	11-76742	15/06/1994	29000	Yes
4378	Joan Liz	Patel	13-89734	18/09/1990	26000	Yes
4897	Peter Amos	Ben	33-37482	17/04/1993	20000	Yes
4643	Muoka Muoki	Nzioki	44-45362	12/12/1991	23000	No

(f) Insert the record given below as record 4 **(2mks)**

4120 Rabecca Kalewa Ben 44-24242 13/10/1900 27000 No

(g) Delete Mary Nthenya record from the database file **(2mks)**

(h) Sort the table in Ascending order by surname **(2mks)**

(i) Move the ***Date - of- Birth*** and ***Tel - No*** fields so that the ***Date - of- Birth*** field is now directly after the ***surname*** field **(4mks)**

(j) Change the field size of the ***Surname*** to 20 **(lmk)**

(k) **(i)** Create a Form with all fields on the Students Table **(2mks)**

(ii) Name the form ***Students Entries*** **(lmk)**

(iii) Insert unbound control named fee - Balance to show the fee balances of all students given the total fee is **35000** and Fee - balance = Total _Fee - Fee _Paid **(4mks)**

(1) Insert a picture in the form in way that all text is visible **(3mks)**

(m) (i) Create a report based on the Student's Table showing the ***Fields Name, Surname*** and ***Tel No.*** **(3mks)**

(ii) Name the report Telephone list **(lmk)**

(n) Insert a picture in the report Header **(2mks)**

(o) **(i)** Create query _l showing all fields of those students whose surname is Ben **(4mks)**

(ii) Create query _2 showing all fields of those students born after 1991 **(3mks)**

(iii) Create query 3 showing only the Student's Name, Student's Surname and Student's Date of birth **(3mks)**

(p) Print ***Students tables Entries form, Telephone list, query_1, query_2 and query_3.*** **(3mks)**

QUESTION TWO

Using DTP software, create the following document as it is. Save it as software in drive A. Print your publication. **(50 marks)**

SOFTWARE

COMPUTER SOFTWARE

System software
system software performs a variety of fundamental operations that avails computer resources or to help the user accomplish specific tasks.

Functions :-

1. Booting the  computer and making sure that all elements of the hardware are working properly.
2. Perform operations such as retrieving, loading, executing and storing programs.

System Software can further be divided into :

Application software
Designed to help the user accomplish specific tasks.

Classification according to acquisition

- **In-house developed programs**
- **Standard software**

Advantages of standard software over the in-house developed programs

- They can be easily installed and run
- They are ready available for almost any task
- Since they are thoroughly tested before they are released , chances of errors in them are rare.
- They can be easily modified
- They are less expensive to acquire

Software	*Uses*	*Examples*
Word processor	Typing documents like letters.	Ms Word, Lotus, WordPro, WordStar
Spreadsheets	Calculating budgets	Ms Excel, Lotus 123
DTP	Design Publications like Newspapers	Adobe Page Maker, Publisher
CAD	Technical Drawing	AutoCAD
Databases	Keeping records and files	Ms Access Dbase
Graphics Software	Creating & Manipulating pictures	Corel Draw, Adobe Photoshop

Factors to consider when selecting software

The following factors should be considered when selecting software:

Authenticity

This refers to genuineness , validity and or legitimacy of an item. Software should be accompanied by licenses and certificate of authenticity.

Compatibility and system configuration

Refers to the ability of the computer program to run the software depending on the system setup.

User friendliness

This is a measure of how easily the user can be able to operate the computer.

User needs determines the type of operating system and application programs that should be considered for application.

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 8

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

451/1
COMPUTER STUDIES
Paper 1
(THEORY)
July / August 2012
Time 2 ½ HOURS

MARAKWET WEST DISTRICT JOINT EVALUATION TEST– 2012(MAWESSE)

Kenya National Examination Council (K.C.S.E)

451/1
COMPUTER STUDIES
Paper 1
(THEORY)
July / August 2012
Time 2 ½ HOURS

INSTRUCTIONS TO CANDIDATES

- Write your **Name**, **Index Number** and **School** in the spaces provided above
- This paper consists of Two sections **A** and **B**.
- Answer **ALL** questions in **Section A**.
- Answer question 16 and any other **THREE** questions from Section **B**.
- All answers should be written in the spaces provided on the question paper..

FOR OFFICIAL USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-15	40	
B	16	15	
	17	15	
	18	15	
	19	15	
	20	15	
	TOTAL SCORE	100	

This paper consists of 12 printed pages.
Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing

SECTION A (40 MARKS)

Answer ALL the questions in this section in the space provided.

1. (a) State the purpose of registers in a computer system. (lmk)

   (b) name two types of registers found in the central processing unit. (1mk)

2. With reference to quality of print, noise, level and cost, compare a dot matrix with a laser printer. (3mks)

3. Convert $3BD_{16}$ to Octal. (3mks)

4. (a) State two importance of internet to society. (2mks)

   (b) Describe two challenges that internet has brought to society. (2mks)

5. Differentiate between the following types of integrity constraints

(i) Validity integrity (1mk)

(ii) Entity integrity (1mk)

(iii) Referential integrity (l mk)

6. Describe two computer crimes taking place in society citing control measures that can be put in place to curb them. (2mks)

7. Computers process digital data through a process called coding. State and explain three coding systems. (3mks)

8. (a) Give four application areas of spreadsheets. (2mks)

(b) Write the following formulae as absolute with reference to cell G20, = F 10 + G20. (lmk)

9. Define modular programming and state two advantages of modular programming. (2mks)

10. While using a word processor, you realize that the contents of the document don't fit on one page. They exceed to the other page by three lines. Suggest three possible ways you can make the document fit one page. (3mks)

11. State the function of each of the following:

(a) Network protocol (lmk)

(b) Hub (lmk)

12. Differentiate between the following pairs as used in database design.

(a) Validation rule and validation text (2mks)

(b) Table and query (2mks)

13. List four factors to be considered when purchasing an operating system. (2mks)

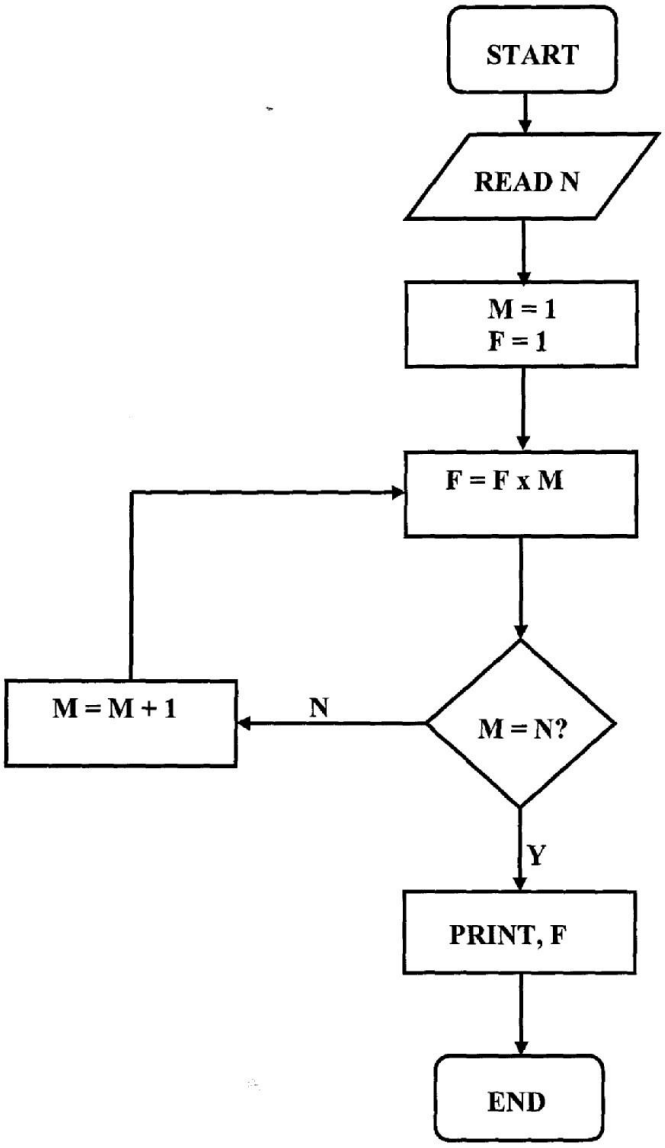
14. Write algorithm to compute the area of a triangle. (2mks)

15. Define the term artificial intelligence. (2mks)

SECTION B (60 MARKS)

Answer question 16 and any other three questions from this section in the spaces provided.

16. Study the flow chart below and answer the questions that follow.



(a) What would the flow chart generate as output if the value of N at input was

(i) 6? (2mks)

(ii) 1? (2mks)

(b) Write a Pseudocode that does the same thing as the flowchart above. (7mks)

(c) Modify the flow chart so as to reject an input below 0 and to avoid looping when the input is 0. (4mks)

17. (a) Describe the ways in which a computer can represent a positive and negative number. (2mks)

(b) A particular computer stores numbers in a single 8 — bit word. How would it represent $O.3125_{10}$?

(c) What is the decimal equivalent of the number 1.0111_2? (3mks)

(d) Perform the decimal subtraction 14_{10}- 6_{10} using

(i) Regular binary. (3mks)

(ii) One's complement. (3mks)

18. (a) The formula = K20 + P $ 18 was typed in cell L21 and then copied to cell M24 of a spreadsheet. Write the formula as it appears in cell M24. (2mks)

(b) (i) Define the term spreadsheet. (lmk)

(ii) Give four examples of spreadsheet packages available in the market today. (2mks)

(iii) Explain the following terms as used in a spreadsheet.

What IF analysis (2mks)

.....

Cell (lmk)

Formula (lmk)

Pie-chart (lmk)

(c) Distinguish between the following sets of terms used in spreadsheet.

(i) Worksheet and workbook (2mks)

(ii) Filtering and sorting (2mks)

(d) State one way in which a user may reverse the last action taken in a spreadsheet package. (1mk)

19. (a) Define an information system. (lmk)

(b) State two circumstances under which interviews may be used as a method of gathering information (2mks)

(c) (i) What is a computer laboratory (1mk)

(ii) Give two measures that should be observed when using the computer laboratory to protect computers against loss of data (2mks)

(d) State three factors you would consider before enrolling for an ICT course in an institution of higher learning. (3mks)

(e) Give two duties of each of the following computer professionals.

(i) Computer programmer (2mks)

(ii) System analyst (2mks)

(iii) Computer technician (2mks)

20. (a) Distinguish between unshielded twisted pair (UTP) and shield twisted pair (STP) cables. (2mks)

(b) (i) With an Aid of a diagram describe the mesh topology. (3mks)

(ii) Highlight one advantage and two disadvantages of the above network topology. (3mks)

(c) Highlight four limitations of computer networking. (4mks)

(d) Define the following terms.

(i) Data Terminal Equipment. (1mk)

(ii) Remote Terminal (1mk)

(iii) Internet (1mk)

NAME……ADM NO……

SCHOOL……..CLASS……

DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 9

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

- This paper consists of **TWO** Sections **A** and **B**
- Answer all questions in Section **A**
- Answer question **16 (compulsory)** and any other **THREE** question in section **B**
- All answers should be written in the space provided in the question paper

FOR OFFICIAL USE ONLY:

Section	Question	Candidates Score

A	**1-15**	
B	**16**	
	17	
	18	
	19	
	20	
Total Score		

SECTION A: (40 MARKS)

Answer ALL the questions in this section in the space provided.

1. **(a)** A computer laboratory should be constantly kept dust and smoke free. Specify **two** effects that dust would have on the operation of computers**.(2 marks)**

(b) Why should you first switch on the UPS before switching on the system unit and the monitor? **(1 mark)**

2. Explain the meaning of backup. **(2 marks)**

3. State the following types of transcription errors. **(2 marks)**

(a) 3455 instead of 345

(b) Smith instead of simth.

4. (a) State **three** ways used to represent a negative number. **(3 marks)**

(b) Perform the following binary arithmetic giving the answer in decimal notation.
1110.0111 + 1101001.011 **(2 marks**

5. Distinguish between data privacy and data integrity as used in computing. **(2 marks)**

6. Differentiate between a primary key and a foreign key while designing a database. **(2 marks)**

7. Distinguish between 'count' and 'countif' functions as used in spreadsheets**.(2 marks)**

8. Match the following statements with repeater, router or a bridge. **(2 marks)**

	STATEMENT	DEVICE
(a)	Operates at data link layer	

(b)	Determine the best path for data to follow	
(c)	Regenerates signals	
(d)	Forwards everything which it doesn't recognize	

9. Explain the impact of Information Technology on organization in each of the following areas. **(2 marks)**

(a) Competition.

(b) Pace of growth.

10. List **two** roles performed by system analyst. **(2 marks)**

11. Explain the following internet related terms. **(4 marks**)

(a) Sign IN.

(**b**) Search engine.

(c) Surf.

(d) Sign up

12. In Kenya Tea Packers Company, several people are employed as record clerks, typists and messenger. The company intends to introduce a computerized system in all the departments. Suggest **three** reasons that would make workers unhappy with the new system. **(3 marks)**

13. State **two** magnetic Storage devices. **(2 marks)**

14. State **three** functions of Central Processing Unit. **(3 marks)**

15. For each of the following file organization methods, state an appropriate storage medium: **(2 marks**

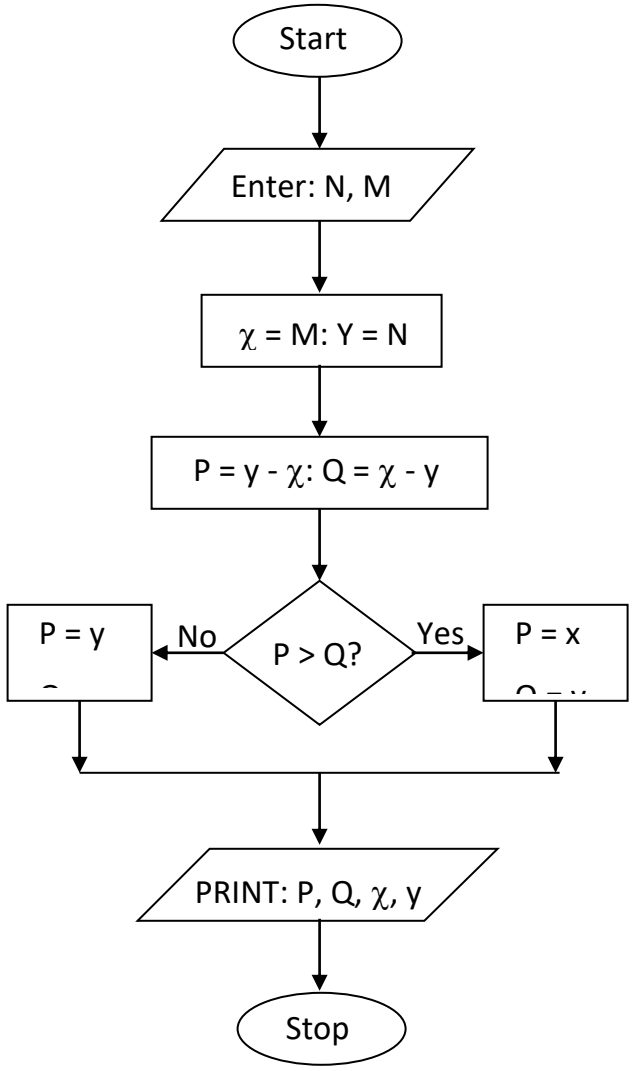
(a)Serial.

(**b)**Random.

SECTION B: (60 MARKS)

***Answer question 16 (compulsory) and any other THREE questions from this section*.**

16. **(a)** Study the flowchart **below** and answer the questions that follows.



(i) State the name of the control structure shown in the flowchart.(1 mark)

(ii) Assuming the user keys in 8 and 14 when prompted to enter the values for **m**
and N respectively, determine the printed values of **P, Q, χ** and **y**.(4 marks)

(iii) Write the pseudocode that would be used in place of the flowchart.
(5 marks)

(b) What is the difference between looping and selection. **(2 marks)**

(c) Name the stage of program development cycle when: **(3 marks)**

(i) A user guide would be written.

(ii) A programmer dry-runs the code.

(iii) System charts would be drawn.

17. **(a)**What is Virtual reality? **(1 mark)**

(b) Explain the following interactive sensory equipment used in virtual reality**.(2 marks**)

(i) Head gear.

(ii) Body suit.

(c) **(i)** What is Artificial Intelligence? **(1 mark)**

(ii) State and explain **three** components of an experts system. **(6 marks**

(d) Most computerized security systems make use of Biometric analysis, name **three** physical features of human beings that can be considered in this analysis.

18. (a) Explain **two** coding schemes used in data representation techniques. **(4 marks)**

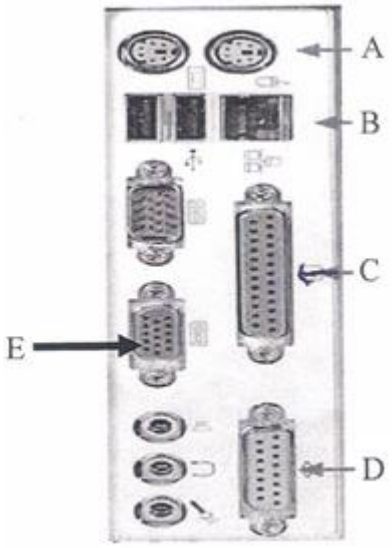
(b) Using one's and two's complement work out 14 – 9.

(i) One's complement. **(2 marks)**

(ii) Two's complement. **(2 marks)**

(c) Work out the hexadecimal equivalent of 101111100011_2 **(2 marks)**

(d) Identify the following types of ports. **(5 marks)**



A

B

C

D

F

19. (a) Explain **two** functions of an operating system. **(4 marks)**

(b) Explain the following terms as used in disk management using operating system:

(i) Disk defragmentation. **(2 marks)**

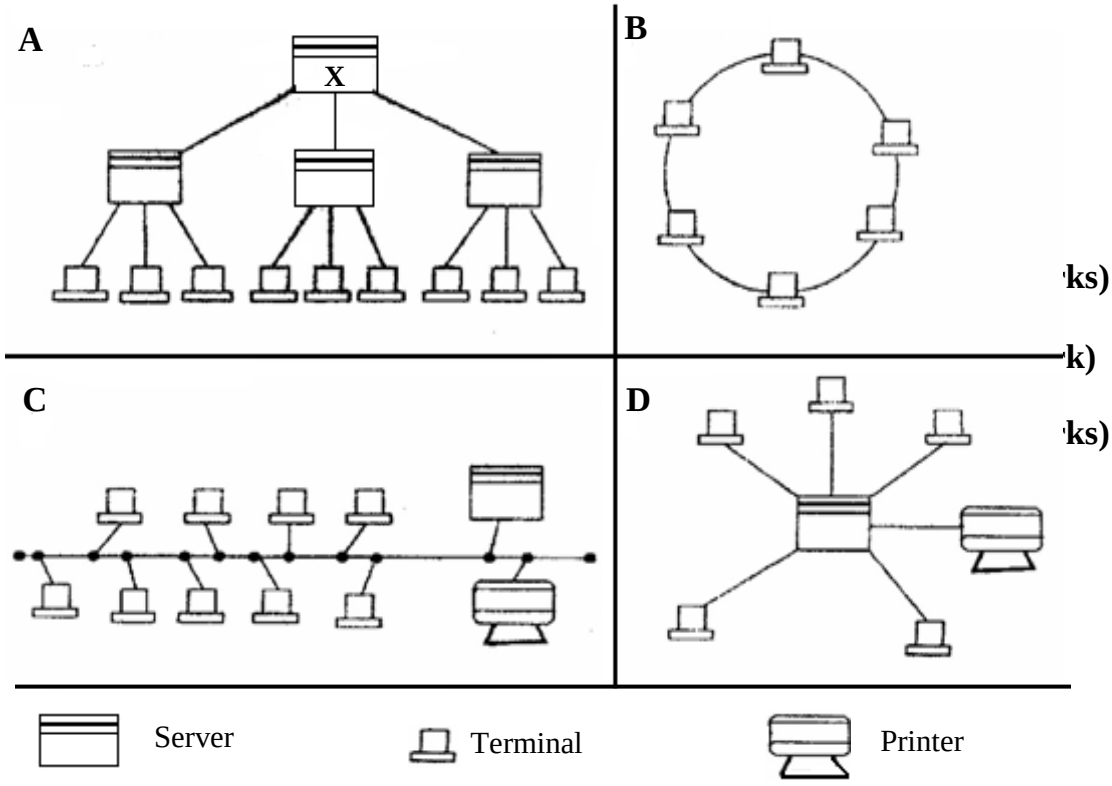
(ii) Disk clean up. **(2 marks)**

(c) What will happen if you attempt to delete a folder while a file contained in it is **Open**? **(1 mark**

(d) State **two** properties that an operating system displays about a file. **(2 marks**)

(e) Give **four** advantages of storing files in folders. **(4 marks)**

20. (a) The diagram **below** shows four common network topologies **A**, **B**, **C** and **D**.



(b) Differentiate between Internet and World Wide Web. **(2 marks)**

(c) Describe the following network services and identify their applications**.(4 marks)**

(i) Voice mail.

(ii) Video conferencing.

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TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 9

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTION TO CANDIDATES

- *Answer any two questions*
- *This question paper consists of three questions. All questions carry equal marks - All answers must be saved in the diskette provided.*
- *Write your name and index number on the CDs*
- *Type your name and index number on the top right hand corner of each printout*
- *Hand out all prints out and CDs*

QUESTION ONE (50 MARKS)

A) using an appropriate word processing, type the following passage and save it in diskette as **DATA SECURITY** **(10mks)**

Data security and control

External threats

i) Fire. Floods, earthquakes and other natural disasters, These are the potential threats hut are not the most common external problems,

ii) Theft of equipment- theft of pc's laser printers and even memorychips after a **Break into a building are very** common.

iii) Espionage (intelligence) - information in the wrong hands can do a lot of damage. Example access to a payroll or accounting information is restricted so such information should be shielded from external and internal spies.

Internal threats

Internal threat would include

i) hacking

ii) Fraud

iii) Hardware failure

iv) Corruption of databases

Viruses load and run without the user requesting them to run: and cause considerable damage e.g.

i) Modifying other program

ii) Hiding inside other programs with an aim of spreading to other machine

iii) Destroying data and programs.

It is a computer code which usually designed to carry out two tasks:

i) To replicate itself' from one computer s stem to another.

ii) To locate itself' within a computer system in such a way as to make it possible for it to amend or destroy programs and data files, by interfering with the normal processes of the operating system.

Questions

(i) Copy the original document (data security) to the next page. **(2mks)**

(ii) Format the headings as follows: **(6mks)**

	Front Size	Font type	Underline	bold
Data security and control	14	Times New Roman	Yes	Yes
External threats	14	Monotype corsiva	None	Yes
Internal threats	14	Default	Yes	No

(iii) Change the numbering to bullets; as follows: **(2mks)**

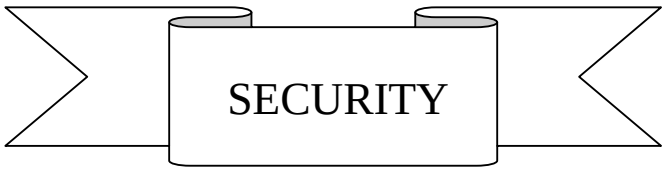
Headings	Bullet
i) External threats ii) Interna	>
	.

(iv) Strike through the word internal threats **(2mks)**

(c) **(i) Insert** the ANY clipart at the bottom center of the document. **(3mks)**

(ii)Create word art as indicated by the symbol. **(2mks)**

(iii)Using auto shape, design a logo as indicated by the symbol. **(2mks)**



(d) Save the document as **SECURITY** **(2mks)**

(e) (i) Copy the original document (data security) to the next page (2mks)

(ii)Drop cap the first letter of the document (D) to cover two lines **(1mk)**

(iii)Spell check the whole document. **(2mks**

(iv)Double space and italics the first paragraph **(3mks)**

(v) Insert a header 'computer threat' to appear in every page **(2mks)**

(vi) Number the pages using the format 1, 2, 3.....

(f) Save the document as **COMPUTER THREAT** **(2mks)**

(g) Print the document

- **(i)** Data security **(1mk)**
- **(ii)** Security **(1mk)**
- **(iii)** Computer threat **(1mk)**

QUESTION TWO (50 marks)

The following is a worksheet extracted from business Join venders.. They have come together to do a business of selling computer accessories.

Names	Cost	Sales	Gross profit	Expenditure	Reserves	Net profit	Remarks
Benson	700	350		450			
Betwel	400	700		50			
Kimwat	200	900		200			
Amos	300	1000		300			
Tembur	100	500		100			
Korir	400	600		40			
Towett	600	850		55			
Maritim	500	350		70			
Kerich	200	350		45			
Beney	500	1000		40			
Danson	600	900		170			
Kones	900	1000		20			
Koech	100	800		130			

Additional Information.

(a) Gross profit = Sales - Cost

(b) Net profit = gross profit – (expenditure + reserves)

(c) Reserves = 10% gross profit

(d) Remarks are: “very good vendor,” “good vendor” “domain vendor” burden vendor” “Quite vendor”

REQUIREMENT

(i) Create the workbook and enter the details, save as vendor **(15mks)**

(ii) **a)** Keep the title of the workbook to be JOIN VENDORS and format it to be bold, font size 14 and align at 20^0 **(4mks)**

b)Format the figures in sale column to 2 decimal places **(2mks)**

c)Insert two rows between Tembur and Korir and enter the records below: **(5mks)**

- Name Bii, cost l00, sales 500 and expenditure 10.
- Name Mutai. cost 800. sales 2000 and expenditure 80.

(iii) Use **sum function** to calculate gross profit for each member **(3mks)**

(iv) Use **product function** to calculate reserves for each member **(3mks)**

(v) Use "**IF function**" and **net profit** to analyses the vendors, taking the following remarks: **(6mks)**

(a) If net profit >=500, then "very good vendor"

(b) If net profit>400, then "good vendor"

(c) If net profit <= 300, then "domain vendor"

(vi) **(a)** Use names of the vendor and cost to insert a line graph. keep the title of the graph to be PRODUCTIVE ANALYSIS, format it and place it in a separate sheet. **(5mks)**

(b) Save the changes as productive analysis **(2mks)**

(c) Print the **"Join vendor**" and **"productive analysis"** including gridlines **(4mks)**

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TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 1 SERIES 1 TRIAL 10

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

-Answer all questions in section *A.*
-Answer question 16 (Compulsory) and any other *THREE* questions in section *B.*
-All answers should be written in the spaces provided in the question paper

FOR EXAMINER'S USE ONLY.

SECTION	QUESTION	CANDIDATE SCORE
A	1-15	
B	16	
	17	
	18	
	19	
	20	
TOTAL SCORE		

SECTION A: (40 MARKS)

Answer all the questions in this section

1. A computer should be connected to a stable power supply. Highlight two reasons. **(2marks)**

2. (a) Give four characteristics of cathode ray tube monitors. **(2 mark)**

(b) Name two examples of flat panel display (FPD). **(2 marks)**

3. Optical storage media are preferred as compared to magnetic media give four reasons**.** **(2 mark)**

4. Many organizations nowadays use in-house developed programs. Highlight four disadvantages of standard software over in house developed, software. **(2 marks)**

5. Briefly explain classification of operating system by human computer interface. **(3 marks)**

6. Differentiate the following:

(i) Insert mode and type over mode **(2 marks)**

(ii) Text alignment and indentation. **(2 marks)**

7. **(a)** Explain the functions of the following spreadsheet inbuilt functions.

(i) SUM IF **(1 mark)**

(ii) COUNT **(1 mark)**

(b) Explain the following errors as displayed in a spreadsheet cell **(2 marks)**

i) ####

ii) ## NAME!

iii) ##NUM!

iv)## DIV/O!

8. Controls in database can either be bound or unbound. Explain. **(2 marks)**

9. State three ways of moving round the page in a desktop publishing window. **(3 marks)**

10. Why is it difficult to detect and prevent computer crimes? Give four reasons. **(2 marks)**

11. Mrs. Jane decided to use electronic data processing method to analyze her data. Highlight four

factors to consider while choosing the method to use. **(2 marks)**

(a) State two disadvantages of mesh topology. **(1 mark)**

(b) Name two functions of network operating system. **(1 mark)**

12. **(a)** Define the term *Artificial Intelligence*. **(1 mark)**

(b)List four areas where artificial intelligence is applicable **(2 marks)**

13. (a) Give four features of micro computers and ICT in future. **(2 marks)**

(b)Name two advantages of automated manufacturing. **(1 mark)**

14. Highlight three type of job opportunities that are available in the field of computer software**.**

(3 marks)

SECTION B (60MKS)

Answer question 16 compulsory and any other three questions from this section

I 6. **(a)** Define the following terms

(i) Structured programming **(I mark)**

(ii) Constants **(I mark)**

(iii) Variable **(l marks)**

b) Distinguish between dummy data and real data as used in system testing **(2 marks)**

c)Mr. Etarukot borrowed a loan of 200,000 from Akukuranut cooperative society at a rate of l0%payable in 2 years flat rate. Draw a flow chart that can be used to develop a computer program that will keep track of monthly repayments. **(5mks)**

d)Write the pseudo code for the flowchart in question (c) above. **(5mks)**

17. (a) Define the term simulation. **(1 mark)**

(b) Highlight four areas where simulation is applicable. **(2 marks)**

(c) Give four disadvantages of a good system analyst. **(2 marks)**

(d) Name four qualities of a good system analyst. **(2 marks)**

(e) What do you understand by the term Artificial Neural Network? **(2 marks)**

(f) Give two features of neural networks. **(2 marks)**

(g) Explain the following conditions

(i) Computer Vision Syndrome (CVS) **(2 marks)**

(ii) Repetitive Stress Injury (RSI) **(2 marks)**

18. (a) Briefly explain the following terms as used in networking. **(2 marks)**

(i) Distributed processing. **(2 marks)**

(ii) Remote communication. **(2 marks)**

(b) Many people today prefer use of cell phones instead of fixed lines. List four advantages of cell phones. **(2 mark)**

(c) Distinguish between logical and physical network topology **(2 marks)**

(d) A school decided to replace its administration system. The current system had restricted reporting facilities. The school is considering using parallel running and direct changeover.

(i) Explain the terms parallel running and direct changeover. **(2 marks**)

(ii) Give four disadvantages of direct changeover

(e) Name three tasks carried out during system changeover. **(2 marks)**

19. a) Give and explain two computational errors committed during data processing. **(2 marks)**

(b) Highlight four ways of minimizing threats to data integrity. **(2 marks)**

(c) Name three risks associated with distributed data processing system. **(3 marks)**

(d) Differentiate between logical and physical computer files. **(2 marks)**

(e) Give two advantages of compiling a program rather than interpreting it. **(2 marks)**

(f) Highlight four errors detecting methods used in program development. **(2 marks)**

(g) Give four benefits of structural programming. **(2 marks)**

20. (a) Internet connects millions of computers and telecommunication devices that have different

software and hardware configurations.

(i) Explain how these devices work together. **(2 marks)**

(ii) Name four telecommunication devices used. **(2 marks)**

(b) Outline four ways of preventing piracy with regard to data and information. (2 marks)

(c) Perform the following operations.

(i) 7ABEX to denary. **(2 marks)**

(ii) 37_{10} -13_{10} using two's compliment giving your answer to 8 binary digit. (3 marks)

(d) List and explain the three parts of the window taskbar. **(3 marks)**

(e) Give two reasons why the hard disk may be partitioned. **(1 mark)**

NAME……ADM NO……

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DATE……

TOP STUDENT KCSE PREDICTIONS

COMPUTER PAPER 2 SERIES 1 TRIAL 10

Kenya Certificate of Secondary Exams

TIME: (2 ½ HOURS)

INSTRUCTIONS TO CANDIDATES

-Write your name and index number in the spaces provided above.
-Sign and write the date of examination in the spaces provided above.
-Write the name and the version of the software used foe each questions attempted in the answer sheet
-Answer all the question
-All questions carry equal marks
-Passwords should not be used while saving in the diskette/removable media.
-All answers must be saved in your diskette/removable media
-Make a print out and tie /staple them together
-Hand in all the printout and the diskette/removable media

1. 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.

EMPLOYEE ID	EMPLOYEE NAME	DEPARTMENT	JOB TITLE	SALARY

7369	Mark Koech	Research	Clerk	48,000
7499	Philip Meme	Sales Sales	Salesman	16,000
7521	Mohamed Ali	Research	Salesman	12,500
7566	Kennedy	Operating	Manager	39,750
7698	Simiyu	Operating	Manager	38,500
7782	David Kamau	Accounting	Manager	34,500
7788	Titus Ole	Research	Analyst	30,000
7821	Simiani	Operations	Analyst	25000
	John Onyango			
	Patel Shah			

Department table

DEPARTMENT CODE	DEPARTMENT NAME	LOCATION
10	Accounting	Nairobi
20	Research	Nakuru
30	Sales and 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.
(l0mks)

(b) Using appropriate key and foreign keys, create a relationship between the two tables. Enter referential integrity between the tables.
(4mks)

(c) Validate the primary key entry to exactly four and two character for the employee ID and dept code fields respectively**.** **(4mks)**

(d) Create a form for each table and use it to enter records shown in the tables above. Save the form as employee form and depart form respectively.(8mks)

(e) It is required that the dates on when the employees were hired be included in the database. Koech was hired on 10/6/98, Merne in 15/8/96,

Muhammed in 16/3/96, Onyango on 9/3/03, the rest were hired on 13/3/04. Insert a new field name it date of hire in the employees table and enter the records.(8mks)

(f) **(i)** Create a query that displays employees who were employed after year 2000. Save the query as LATEST EMPLOYEES.
(8mks)

(ii) Sort latest employees query in ascending order using the employee's name**.** **(2mks)**

(g) Create a report that dispays the employee name, job title, department, name and salary, grouped according to location. Save the report as EMPLOYEES REPORT. **(4mks)**

(h) Print
(i)Employees and department tables designs
(ii)Employee and department forms
(iii)Latest employees query
(iv)Employees report. **(2mks)**

2. The following is an extract of soil samples collected from a given agricultural station in kilograms (KG)

	A	B	C	D	E	F	G	H	I
1	**STATION**	**MON**	**TUE**	**WED**	**THUR**	**FRI**	**SAT**	**SUN**	
2	KIEGOGI	29.4	27.1	14	18	31.5	30	26.5	
3	NYARAMBA	11.1	14	15.3	16	11.2	8	7.3	
4	NYAMATIMBO	16	15	15.7	16	17	19	22.5	
5	KENYORO	18	24	19	22.5	28	30	33	
6	BONYUNYU	22	25.2	26	29	27	31	36	

Figure 1

(a) Type the data as it is and save it as KILOGRAMS. **(7mks)**

(b) **(i)** Insert two blank rows at the top of the worksheet and type the heading "Soil in Kilograms (KG) in the first blank row.
(3mks)

(ii) Type the heading "Soil in Kilograms (KG)" into cell B10 **(lmk)**

(iii) Merge the cells containing each of the headings **(4mks)**

(c) **(i)** Copy the names of the stations into cells A13 down the column **(3mks)**

(ii) Copy the days of the week Mon, Tue... Sun into cells B12 along the row

(2mks)

(d) Type 32 and 18k into cells B20 and B22 respectively and use them as cell reference to compute the tones (T) values using the formula T 32 + 18k where k is the soil samples. **(11mks)**

(e) Convert all the soil values to one decimal place. **(6mks)**

(f) **(i)** Compute the average soil values for each station in both in kilograms (KG) and in Tonnes (T) in column I

(ii) Convert the average soil to two decimal places.

(iii) Save the worksheet as soil all. **(3mks)**

(g) Create a pie chart showing the stations and average soil in kilograms (KG). **(4mks)**

(h) Print soil all and the pie chart. **(2mks)**

'an investment of knowledge pays'

Other available resources are;

- well summarised primary and secondary notes
- F1-F4 termly exams
- primary exams
- KCSE past papers
- KCPE past papers
- Mocks
- lesson plans
- schemes of work

Note:Exam questions are always free of charge

Marking scheme are not free

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The following KASNEB notes are available;

- ATD
- CPA
- CS
- CIFA

Call Mdm.Mariam:0746711892 to acquire them