

451/2

COMPUTER STUDIES

PAPER 2 (PRACTICAL)

JULY / AUGUST 2011

2 ½ HOURS

MASINGA DISTRICT JOINT EVALUATION TEST - 2011

Kenya Certificate of Secondary Education (K.C.S.E)

COMPUTER STUDIES

PAPER 451/2

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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

- Create a database file called Mwangaza College and save it. (2 Marks)
- 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)
- Relate the four tables as required to have one to many relationships (4 Marks)
- Create a data entry form for each table (8 Marks)
- Using the forms, populate the tables with the records (8 Marks)

- f) Query the tables to show Sname, Coursedescription, 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 – Sname, 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)