NAME………………………………………..INDEX NO……………………

CANDIDATE SIGN……………………. DATE……………………

Mock Exam
451/2
Computer Studies
Paper 2
(PRACTICAL)
2 ½ Hours

QUESTION ONE

(a)   Type the following text using a word processor, font size 12', line spacing 1 1/2 and save it as

ACM1.   (20mks)

Congress Endorses Computer Science Education as Driver of Innovation, Economic Growth

AC (1 0/21/0 9,)

ACM and several computing community partners commend the U.S. I-House of Representatives passage of a resolution to improve the visibility of computer science as a transforming industry that propels technology innovation and improves economic productivity. The House resolution designates the week of December 7 as 'National Computer Science Education Week' and calls on educators and policymakers to improve computer science learning at all education levels and to encourage increased participation in computer science.

ACM is working with Microsoft. Google, Intel. the Computer Science Teachers Association (CSTA), the National Center for Women & Information Technology (NC WIT), and the Computing Research Association to improve awareness that computer science education is a national priority. "National Computer Science Education Week will help us draw attention to the need for an educational system that values computer science as a discipline and provides students with critical thinking skills and career opportunities," says ACM Education Policy Committee chairBobby Schnabel, dean of the School of Informatics at Indiana University.

CSTA executive director Chris Stephenson notes the vital role that computing plays in people's daily lives, and stresses the urgency of building a strong computing workforce. "We need to expose K- 12 students to computer science concepts to help them gain critical 21st century skills and knowledge. and we're grateful for Congress' recognition of this need as a national priority," Stephenson says. NCWI CEO and co-founder Lucy Sanders says the annual commemoration of National Computer Science Education Week can strengthen efforts to inform students, teachers,

parents, and the public about how computer science enables innovation in all science, technology, engineering, and mathematics fields and creates economic opportunities.

REQUIRED

(a)   (i)   Format the heading as follows: Uppercase, size 16', double underlined.   (3mks)

(ii)   Apply two columns in the second paragraph.   (2mks)

(iii)   Indent the third paragraph to 0.5" to the right and 0.5" to the left. (2mks)

(iv)   Save the document as ACM2.   (2MKS)

(b)   (i)   Copy ACM1 into a new document.   (2mks)

(ii)   Apply drop cap in the first paragraph.   (2mks)

(ii)   Apply page break in the document so that each paragraph is in its own page.   (2mks)

(iii)   Number the pages in the document.   (2mks)

(iv)   Enter the following in page two of the document.   (3mks)

PACKAGE	DURATION	FEES
WORD		1500
EXCEL	20 HOURS	
ACCESS	25HOURS	3000
DTP	15 HOURS	3500

(iv)   Save as ACM3.   (3mks)

(c)   Print ACM1, ACM2 and ACM3.   (3mks)

Question Two

A school keeps its students details in a computer database. The information below contains details obtained from two tables of database. Study the tables and answer the following questions.

DETAILS

NAMES	KCPE MARKS	ADMNO	Year Of KCPE	DORMITORY
Tom Jose	250	2030	2011	Ruvuma
Okoth Rao	356	2031	2012	Zaire
Ken Otieno	412	2032	2012	Tana
Dan Muoso	205	2033	2011	Ruvuma
Adan Hassan	400	2034	2010	Zaire
Ahmed Kubasu	185	2035	2011	Tana
Mutai Jemo	289	2036	2012	Ruvuma
Mutua Sarafi	300	2037	2012	Zaire
Muesh Linda	426	2038	2011	Tana
Viena Oscar	405	2039	2010	Zaire
Violet Kadija	336	2040	2012	Tana

PERFORMANCE				
ADMNO	ENGLISH	MATHS	KISWAHILI	COMPUTER
2030	59	48	56	83
2031	56	36	48	76
2032	29	25	59	80
2033	88	79	65	67
2034	70	29	62	91
2035	39	46	24	68
2036	82	78	18	84
2037	54	75	19	46
2038	69	54	46	87
2039	53	96	75	24
2040	74	20	49	50

a) Create a new database called STUDENTS.
   (2marks)

b) Design two tables: DETAILS and PERFORMANCE with the following **properties** in their fields: Validate the ADMNO entry to exactly four characters, three characters for KCPE MARKS and DORMITORY names each to start with capital letter.
   (4marks)

c) Using appropriate **primary and foreign keys** create a relationship between the two tables and enforce referential integrity.
   (4 marks)

d) Create and use forms to enter data into tables.   (12 marks)

e) Create a query that would extract students whose name starts with letter "A" and save it as "Names"

   (4marks)

f) Create a query that would display *ADMNO, NAME, ENGLISH, MATHS,KISWAHILI and COMPUTER* and calculate the totals of the four subjects, sort the totals in descending order. Save it as "**MARKS**"
   (4marks)

g) Create a query that would display **only** those students who sat their KCPE in **2012** and reside in **Tana dormitory**, save the query as **"Tanas"**
   (3marks)

h) Using the performance table, compute the *average* for **ENGLISH** field, *standard deviation* for **MATHS** field and *Variance* for **KISWAHIL**I field to be displayed on the same table.
   (3marks)

(i) Create a form to display all fields of details table with the following:
   (7marks)
   − Layout:-tabular

   − Style:-opulent

   − Title:-**Dform**

   − Add two *form controls* to "print" and "close" the form.

j) Create a report with the title "**Excellent"** using the query "**MARKS**" above.
   (2marks)

k) Print:

i) **Dform** in portrait while the query "**MARKS**" in landscape
   (2marks)

ii) Performance table
   (2marks)

iii) Report excellent

END

QUESTION TWO

1. a) The following information was extracted from a mark book maintained by a class teacher of a certain school. Using a spreadsheet, create a worksheet that contains the information and save as Test 1.

(5 marks)

NAME	MATH	ENG	KISW	BIO	PHY	CHEM
Muigai K.	85	81	60	92	90	74
Wakhisi N.	81	50	48	56	68	52
Otieno J.	62	71	44	55	60	60
Nasimiyu C.	70	42	51	48	62	88
Wamaitha D.	21	44	30	72	22	40
Kimeli F.	48	55	31	45	60	50
Chepchumba G.	98	54	65	30	40	45
Nasong'o R.	48	52	28	47	50	54
Saidi A.	49	56	65	58	50	55
Okiya S.	65	74	45	80	42	50

b) Create four new columns and label them as TOTAL, MEAN, GRADE and REMARK respectively.   (2 marks)

c) i) Using formulas compute the total and mean for Muigai K. and copy it to other cells to generate values for the other students.   (4 marks)

ii) Use an appropriate function to determine a grade and a remark for Muigai K. Use the following grading system to determine the student's grade: (8 marks)

MEAN   GRADE   REMARK

80 to 100	A	Excellent
70 to 79	A-	Very Good
60 to 69	B	Good
40 to 59	C	Fair
Below 40	F	Fail

ii) Copy the formulas to other cells in order to generate total, mean, grades and remarks for all the other students. Save your work as Test 2. (3 marks)

iii) Format the mean marks to one decimal place. (1 mark)

d) The class teacher wishes to determine those students who are likely to qualify for a course in medicine. For a student to qualify, he/she must have scored:

- 70 marks and above in Biology,

- 60 and above in either Chemistry or Physics,

- 50 and above in either English or Kiswahili.

Create a new column labeled MEDICINE and use an appropriate function to determine those students who qualify. If a student qualifies, the function should return "QUALIFY", otherwise it should return "UNQUALIFIED". (5 marks)

e) Create a new column and label it as POSITION. Enter a function in cell L2 and copy it to other cells to determine the position of each student. (4 marks)

f) Apply borders to your worksheet as follows:

i) Double outline border. (1 mark)

ii) Single line for inside vertical and horizontal borders. (1 mark)

g) Copy the data on sheet1 to sheet2 and rename the sheet2 as QUALIFY. Filter the worksheet to display the records of the students who qualify. (4 marks)

h) Create a bar graph on a separate sheet to compare the performance of the first four students in the six subjects. Label the bar graph appropriately. (4 marks)

i) Launch a word processor and type the following letter. Save as Confirmation. (3 marks)

15/03/2018

Dear <<NAME>>

We are pleased to inform you that you qualify to pursue a course in medicine having satisfied the admission board by posting a mean of <<MEAN>> and a mean grade of <<GRADE>> respectively. This performance placed in position   <<POSITION>>.

Thanks.

Yours faithfully,

J. J. Mwanamoshi

DIRECTOR

j) Merge the letter in (i) above (Confirmation) and the information on sheet 2 (QUALIFY) to generate letters for those students who qualify for a course in medicine. Save as Confirmation letters. (4 marks)

k) Print Test 1, Test 2, Confirmation and any **one** of the confirmation letters. (2 marks)