

Name.....

Index No...../.....

School.....

Candidate's Signature.....

Date

451/1
COMPUTER STUDIES
Paper 1
THEORY
July/August 2009
2 ½ Hours

NANDI CENTRAL JOINT EVALUATION TEST - 2009
Kenya Certificate of Secondary Education (K.C.S.E)

451/1
COMPUTER STUDIES
Paper 1
THEORY
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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** from section **B**
- All answers should be written in the spaces provided in the question paper

For Examiner's use only.

Section	Question	Candidate's Score
A	1 – 15	
B	16	
	17	
	18	
	19	
	20	
	Total Score	

*This paper consists of 10 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.

1. Define the following terms (2mks)

a) Data signal

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.....

b) Analogue data

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.....

2. a) What is a hard copy (1mks)

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.....

b) State two reasons why hardcopy output is still very necessary today (1mk)

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.....

3. A form four student tried to save his project from a hard disk to a CD but was not successful. List **three** possible causes of the anomaly. (3mks)

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4. Define the following terms as pertaining computer software (3mks)

a) User friendliness

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b) Portability

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c) Compatibility

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5. List **three** hardware considerations that one must consider before buying a computer. (3mks)

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6. Explain the importance of the following: (2mks)

a) Disk defragmentation

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b) Disk compression

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7. List **four** benefits of having the computer linked to the internet (2mks)

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.....

8.

a) Write the following statement “mock examinations” in (2mks)

i. Title case.....

ii. Toggle case.....

b) State when the following mouse shapes appear in an excel worksheet (2mks)

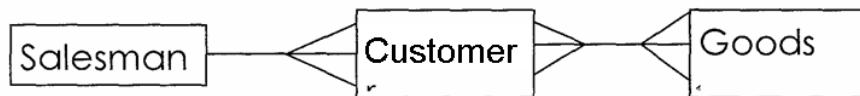
+

⌕

9. Differentiate between an action query and select query (2mks)

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.....

10. Explain the above E.R. Diagram below. (2mks)



11. Represent -21 in three ways in 8 bit binary (3mks)

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.....

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.....

12. List **four** social negative effects of networking computers. (2mks)

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.....

13. a) Explain artificial neural network (1 mk)

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.....

b) List **two** essential attributes of a neural network (2mks)

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.....

14. Differentiate between job displacement and job replacement (2mks)

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.....
.....

15. a) Give **two** reasons why programmers need to document: (2mks)

.....
.....

b) Draw simple flowchart extracts to explain the following statements (3mks)

i. If then

.....
.....
.....

ii. While

.....
.....

.....
.....
iii. Repeat until statement
.....
.....
.....
.....

SECTION B (60 marks)

Answer questions 16 and any other three questions from this section.

16. a. List **two** programs that can be used by Web Developers (2mks)

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.....

b. Explain **three** methods of testing the program for errors (3mks)

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.....

c. Study the flowchart below and design a flowchart for the pseudo code (8mks)

Set total to zero

Set grade counter to one

While grade counter is less than or equal to ten

Input the next grade

Add the grade into total

Add one to the grade counter

Set the class average to the total divided by ten

Print the class average
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17. a) Explain how data is represented in the following media (3mks)

i. Magnetic media

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ii. Optical media

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iii. Fiber optic cable

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b) List **three** limitations of ring topology (3mks)

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c) Explain how a MSAU is used to eliminate the shortcomings of ring topology in an IBM token ring (2mks)

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d) Distinguish between a physical and logical network topology (2mks)

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.....

e) List **five** hardware requirements in setting up a peer to peer network (5mks)

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.....

18 a) Convert the following number to decimal (4mks)
1111011. 101 12

.....
.....
.....

b) When are the following files used? (3mks)

i. Transaction file

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.....
.....

ii. Reference file

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.....
.....

iii. Master file

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.....
.....

c) Explain **two** errors that can occur during data entry (2mks)

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.....
.....

d) Outline **four** ways in which data integrity may be maintained (4mks)

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.....

e) How are records stored in the following media accessed (2mks)

i. Magnetic tape

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.....

ii. Flash disk

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.....

19. a) Explain **three** ways in which the contents of a spreadsheet may be prevented from unauthorized editing (3mks)

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.....

The following records were entered in a database

Date	Class	Registration No
1/1/2007	East	1425-A
1/1/2008	North	1426-A
12/1/2008	North	1426-B

b) Suggest a validation rule for date given that it should be not before 1/1/2006 (2mks)

.....
.....
.....

c) List the records that will be displayed after running the following criteria? (2mks)

i. <#1/1/2008 on date

.....
.....

ii. 1426-A on class

d) Write the input mask for registration No

(1 mk)

.....
.....

e) Explain the following terms as used in Word Processing (3mks)

i) Word Wrap

.....
.....

ii) Orientation

.....
.....

iii) Indenting

.....
.....

f) A worksheet contains the data as shown below.

	A	B	C	D	E	F	G
1	8		20				
2	11		45				
3	14		52				
4							
5							
6							
7							
8							

i) The formula = COUNTIF (C1:C3, "20") was entered at G1. Write down the value that was

displayed.

(1mk)

.....
.....

ii) Write down the formula that would be entered at cell B7 to sum the values in column A whose values are greater or equal to 5. (2 mks)

.....
.....

iii) The formula = \$C2 + C\$3 is entered in cell C5 and then copied to D10. Write down the formula as it appears in the destination cell. (1 mk)

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.....

20 a. Define the following terms in relation to internet (3mks)

i. Hyperlink

.....
.....

ii. Surf

.....
.....

iii. File attachment

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.....

b. Outline **four** controls against theft of computer accessories (4mks)

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c. Students of form four want to develop a system to be used by a wholesale business, they are preparing to carry out fact finding, List four documents one may observe in the wholesale to help them develop a system for the wholesale (4mks)

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.....

d. List and explain **four** components of a fact finding report (4mks)

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.....
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e. What is a feasibility study? (1mk)

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f. Explain the importance of schedule feasibility (2mks)

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g. After developing a system it is important to prepare a user manual. List four uses of a user manual. (4mks)

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END