

Name: Index no

School: Candidate's sign

Date:

451/1
COMPUTER STUDIES
PAPER 1 (THEORY)
JULY/ AUGUST 2016
TIME 2 ½ HOURS.

MAKUENI COUNTY CLUSTER PREPARATORY EXAMINATION 2016

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

451/1
COMPUTER STUDIES
PAPER 1

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 question 16(**compulsory**) and any other **THREE** questions from section **B**.
- All answers should be written in the spaces provided on the question paper
- 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

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

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Turn over

SECTION A

Answer all questions from this section in spaces provided.

1. List THREE causes of computer data loss. (3marks)
-
-
-
-
2. The electronic commerce (E-commerce) has enabled to do business through the internet. This is enough to save time, spend less and reduce movement. What could be the major obstacles to this trade? (2marks)
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-
3. (a) Differentiate between hard system and soft system. (2marks)
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-
-
-
-
- (b) Give two factors that may lead to system entropy. (2marks)
-
-
-
-
4. Define the following terms as used in data communication (3marks)
- (a) Noise
-
-
-
- (b) Multiplexing
-
-
-
-
-

(c) Attenuation

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.....

5. (a) State any **TWO** functions of a network administrator. (2marks)

i)
ii)

(b) Explain the term flaming as used in internet communication. (2marks)

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6. (a) What is biometric analysis? (1mark)

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.....
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.....

(b) Give **TWO** applications of biometric analysis in computing. (2marks)

i)
ii)

7. List and describe **FOUR** strategies for conversion from an old system to a new system. (4marks)

i)
.....
ii)
.....
iii)
.....
iv)
.....

8. Give **TWO** methods that are used to transform an object in DTP. (2marks)
- i)
 - ii)
9. List **FOUR** stages in data collection. (2marks)
- i)
 - ii)
 - iii)
 - iv)
10. Distinguish between a line printer and a page printer. (2marks)
-
-
-
11. An E-mail window is divided into folders. State the purpose of the following folders (2marks)
- (a) Inbox
-
-
-
- (b) Drafts
-
-
-
-
12. Give any **TWO** disadvantages of an automated production. (2marks)
- i)
 - ii)
13. Explain **TWO** functions of a computer engineer. (2marks)
- i)
 - ii)
14. List any **FOUR** toggle keys on a computer keyboard. (2marks)
- i)
 - ii)
 - iii)
 - iv)

(b) Differentiate between the following pairs of terms as used in computing.

(i) Storage device and storage media (2marks)

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(ii) Primary memory and auxiliary memory. (2marks)

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(c) A school intends to purchase new software for exam analysis and financial management in the school accounts office. List **TWO** items that should accompany the software. (2marks)

i)

ii)

(d) List any **FOUR** components of the system unit. (2marks)

i)

ii)

iii)

iv)

(e) Your parents have asked you to advice on the choice of printer for home use. List **THREE** considerations that are specific to printers. (3marks)

i)

ii)

iii)

(f) What is an embedded computer? (2marks)

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.....

18. (a) Due to rapid use of technology there are so many emerging issues e.g. cloud computing.

(i) What is cloud computing? (2marks)

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.....

(ii) State three benefits of cloud computing. (3marks)

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.....

(b) Computer students visited a local TV station in the city and noticed that news presenter in studio was communicating in real time with other four reporters through a web cam and a microphone connected to a notebook PC nearby. The live images of the other reporters were projected on a white board mounted in the studio.

(i) Describe this type of communication. (2marks)

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.....
.....

(ii) State **TWO** advantages and **ONE** disadvantage of this type of communication. (2marks)

Advantages

i)
ii)

Disadvantage

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

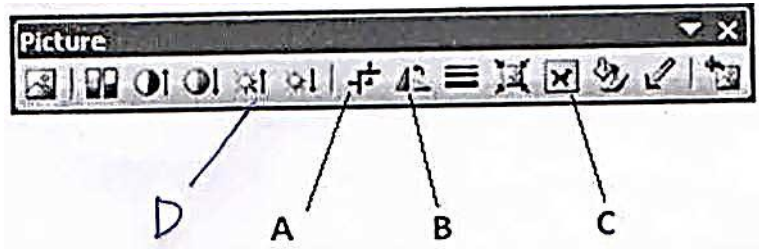
(c) Currently there is a shift in technology towards digital from analog. State any **THREE** advantages of digital technology over analog technology. (3marks)

i)
ii)
iii)

(d) Describe **THREE** impacts of ICT on employment protection agency (EPA). (3marks)

- i)
- ii)
- iii)

19. (a) The figure below shows a picture tool bar



Name and state functions of the features marked A, B and C:

- (i) A (1mark)
.....
.....
- (ii) B (1mark)
.....
.....
- (iii) C (1mark)
.....
.....
- (iv) D (1mark)
.....
.....

(b) Give **THREE** benefits of print previewing a document before printing. (3 marks)

- i)
- ii)
- iii)

(c) The following is a list of students and their marks they scored in the various subjects.

	A	B	C	D	E	F	G
1	NAMES	BIOLOGY	HISTORY	ENGLISH	COMPUTER	TOTAL	MEAN
2	Kim	57	78	63	52		
3	Tom	62	75	52	70		
4	Tim	48	63	57	73		
5	Ken	60	61	70	64		
6	Ben	72	60	48	63		
7							

(i) Write a formula to calculate the following: (3marks)

(a) Total marks for Ken

.....

(b) Mean mark for Tim

.....

(c) The highest score for Kim

.....

(ii) Write the formula to count all the computer students with marks greater than 60. (2marks)

.....

(iii) Give the functions of the following types of charts. (3marks)

(a) Pie chart

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(b) Line graph

.....

(c) Bar graph

.....

20. (a) Convert 25.125_{10} to base 2

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.....

(b) Convert 101.11110_2 to base 10

(3marks)

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(c) Using one's complement work out $14_{10} - 9_{10}$ (leave your answer in base 2)

(4marks)

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(d) Use Twos complement to work out $11000_2 - 111_2$

(3marks)

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e) Assuming that existence of base 6 list the numbers in the number system.

(2marks)

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