

Name:

Index no

School:

Candidate's sign

Date:

451/1
COMPUTER STUDIES
PAPER 1
(THEORY)
TIME: 2 ½ HOURS.

MACHAKOS COUNTY KCSE TRIAL AND PRACTICE EXAM 2015

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

451/1
COMPUTER STUDIES
PAPER 1
(THEORY)

INSTRUCTION TO CANDIDATES

- Write your name and 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(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 9 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing

FOR OFFICIAL USE ONLY

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

1. Describe the following terms as used in Microsoft Word.

(a) Text wrapping (1mark)

.....
.....

(b) Column breaks (1 mark)

.....
.....

2. (a) What is a blog in relation to internet services (2marks)

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

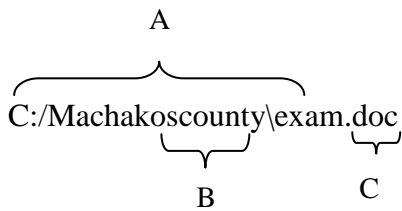
(b) Explain the impact of internet in the information security (2marks)

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

3. Distinguish between software installation and software configuration in relation to operating system (2marks)

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

4. The following is information about a computer file.



(a) Identify the parts labeled: (3marks)

A

.....
.....

B

.....
.....

C

.....
.....

(b) State one function of the part labeled C (1mark)

.....
.....

(c) Give the name of the storage device where this computer file is stored. (1mark)

.....
.....

5. Describe two application areas of virtual reality. (2marks)

.....
.....

6. List down two softcopy output devices. (2marks)

.....
.....

7. Most computerized security systems make use of Biometric analysis, name three physical features of human beings that can be considered in this analysis. (3marks)

.....
.....

.....
.....

8. List three sources of viruses. (3marks)

.....
.....

.....
.....

9. Briefly explain any two types of errors that can be encountered during program testing (2marks)

.....
.....

.....
.....

10. Differentiate between a transaction file and a master file. (2marks)

.....
.....

.....
.....
11. List two disadvantages of fiber optic cable. (2marks)

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

12. a) What is a template? (2marks)

.....
.....

b) State two purpose of a template. (2marks)

.....
.....

13. List four ways in which data integrity can be compromised. (4marks)

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

14. Why octal and hexadecimal are preferred to binary (1mark)

.....
.....

15. Differentiate between the terms signal Attenuation and Noise as used in data communication.

.....
.....

SECTION B

Answer question 16 and any other three questions in this section

- 16. a) State three advantages of low -level languages (3marks)

.....

.....

.....

- b) Give two differences between a compiler and an interpreter. (2marks)

.....

.....

.....

- c) i) Draw a program flow chart to give out the sum and average of the first 50 odd numbers in the series: 1, 3, 5... (5marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

ii) Write a pseudo to give out the sum and average of the first 50 odd numbers in the series:

1, 3, 5...

(5 marks)

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

17. Use two complement to perform the following arithmetic operations

i) $15_{10} - 12_{10}$

(4marks)

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

ii) $10111_2 - 1011_2$

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

b) 1011_2 is a ones complement binary representation of negative number using four bits work out the likely positive equivalent in base 10. (4marks)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

c) Convert the decimal fraction 10.375_{10} into its binary equivalent

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

d) Assuming the existence of base five, list the numbers used in the number system (1mark)

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

18. a) State and explain two disadvantages that will come about if a network was to be installed in your school. (4marks)

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

b) Discuss two disadvantages of wireless networks. (4marks)

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

c) Write the following abbreviation in full.

i) F.T.P

.....
.....

ii) H.T.T.P

.....
.....

d) With the aid of a diagram, discuss Hybrid topology.

(3marks)

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

e) Discuss one advantages of a client / server network.

(2marks)

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

19. a) Explain why a computer is able to display the correct time and date when it has just be switched on.

(2marks)

.....
.....

b) Discuss two types of special memories found in a Computer System.

(4marks)

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

c) i) Define a Bus with reference to a computer system.

(1mark)

.....
.....

ii) List two examples of buses.

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

d) Distinguish between a power cable and interface cable. (2marks)

.....
.....

e) Differentiate between the different types of RAM. (4marks)

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

20. a) i) Define a system. (1mark)

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

ii) Explain system entropy. (2 marks)

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

b) State three circumstances that can lead to development of information systems (3marks)

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

c) Distinguish parallel changes over from straight change over as used in system implementation. (2marks)

.....
.....

d) Discuss two fact finding methods.

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

e) Differentiate an open system from a closed system.

(2marks)

.....
.....

f) List two responsibilities of a system analyst.

(2marks)

.....
.....