NAME ..... INDEX NUMBER .....

CANDIDATE SIGNATURE.....

DATE .....

BUURI EAST STANDARDS

Kenya Certificate of Secondary Education

COMPUTER PAPER 1

2 ½ Hours

TERM II - EXAM - 2019

INTRODUCTION TO CANDIDATES

- Write your name and index number on the space provided
- Answer all questions in Section A
- Answer questions 16 (compulsory) and any other three questions from Section B
- All answers should be written in the spaces provided on the question paper.

For Examiner's use only

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

SECTION A: 40 Marks

Answer all the questions in this section in the spaces provided.

1) Define the following terms as used in database (3 Marks)

(i) Validity integrity

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(ii) Entity integrity

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(iii) Referential integrity

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2) (a) What is utility software (2 Marks)

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. (b) Give four example of utility software (2 Marks)

3) (a) Explain the meaning of the following terms

(i) Data verification (1 Mark)

(ii) Data validation (1 Mark)

4) List three application areas of artificial intelligence (3 Marks)

5) Discuss the contribution of the internet to e-learning (3 Marks)

6) Briefly explain how the OVR feature in word processor works (2 Marks)

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7) (a) List down two types of scanners (1 Mark)

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(b) State two advantages of a MICR (2 Marks)

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8) State the role of the following utility software in a computer system (3 Marks)

a) Merge

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b) Compressor

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c) Anti –virus

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9) List down difference between buffers and registers
(2 Marks)

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10) (a) Define computer file (2 Marks)

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(b) Name two types of data processing files (2 Marks)

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11) The binary pattern 1101 0001 0101_2 can be represented in more than one way. (3 Marks)

a) State the denary equivalent

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b) State its twos' complement

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12) Distinguish between password and data encryption

(3 Marks)

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13) Define the term computer fraud

(1 Mark)

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14) What are peripheral devices and give examples

(2 Marks)

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15) Mention two possible ways of warm booting a computer

(2 Marks)

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SECTION B: (60 MARKS)

Answer question 16 and any other three questions from this section in the spaces provided.

16) (a) Define the following terms as used in programming.

(i) Algorithm (2 Marks)

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(ii) Sentinel

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(b) Henry a programmer has been requested to develop a computer program that prompts the user to key in X numbers, in each round the program updates the sum until the user enters a sentinel. The program then displays the cumulative sum and average of the x numbers. Draw a flowchart that would be used to solve the problem. (7 Marks)

(c) Write a pseudocode of the above flowchart you have drawn above (6 Marks)

17) (a) Define the following web related terms.

(i) Hyperlink (2 Marks)

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(ii) WWW (2 Marks)

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(b) List four categories/types of keys found in a standard computer keyboard. Give an example of each.

(4 Marks)

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(c) Explain how each of the following would affect the suitability of a computer room.

(i) Minimized background light (1 Mark)

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(ii) Enough ventilation (2 Marks)

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(d) (i) What two actions should be taken in case of fire outbreak in the computer laboratory

(2 Marks)

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(ii) Name any two safety precaution against the same

(2 Marks)

18) a) Define the following terms as related/used in word processing: -

(i) Margin

(ii) Drop-cap

(iii) Word-Wrap (3 Marks)

(b) Give three comparisons of traditional method of typing a document on a typewriter against a word processor.

(6 Marks)

(c) State three advantages and three disadvantages of using interview method in information gathering.

(6 Marks)

19) (a) State a suitable course which a student pursue to gain necessary skills for the job of a computer technician. (2 Marks)

(b) Explain three components of an expert system (6 Marks)

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(c) State the highest ICT qualification a person can pursue from the following institutions.

(i) Technical Institute

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(ii) National Polytechnic

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(iii) University (3 Marks)

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(d) Explain any two effects of a computer on employment (4 Marks)

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20) (a) Perform the following binary arithmetic's and give your answer in decimal notation.

(i) $1010 .101_2 + 11. 011_2$ (3 Marks)

(ii) 1010.011_2 - 11.011_2 (3 Marks)

(b) Convert the following numbers into their binary equivalents

i. 0.5626_{10} (3 Marks)

ii. 0.3125_{10} (3 Marks)

(c) Using four-bit two’s complement, perform the following arithmetic (3 Marks)

101_2 - 111_2