NAME …………………………………… INDEX NUMBER ……………

CANDIDATE SIGNATURE………………

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**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**

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| **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)
2. Validity integrity

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1. Entity integrity

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1. Referential integrity

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

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

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1. (a) Explain the meaning of the following terms
2. Data verification (1 Mark)

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1. Data validation (1 Mark)

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1. List three application areas of artificial intelligence (3 Marks)

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

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

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1. (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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1. State the role of the following utility software in a computer system (3 Marks)
2. Merge

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1. Compressor

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1. Anti –virus

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1. List down difference between buffers and registers (2 Marks)

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1. (a) Define computer file (2 Marks)

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

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1. The binary pattern 1101 0001 01012 can be represented in more than one way. (3 Marks)
2. State the denary equivalent

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1. State its twos’ complement

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1. Distinguish between password and data encryption (3 Marks)

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1. Define the term computer fraud (1 Mark)

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1. What are peripheral devices and give examples ( 2 Marks)

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1. 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.**

1. (a) Define the following terms as used in programming.
2. Algorithm (2 Marks)

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1. 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)

1. (a) Define the following web related terms.
2. Hyperlink (2 Marks)

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1. 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.

1. Minimized background light (1 Mark)

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1. Enough ventilation (2 Marks)

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1. (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)

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1. a) Define the following terms as related/used in word processing: -
2. Margin

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1. Drop-cap

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1. Word-Wrap (3 Marks)

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(b) Give three comparisons of traditional method of typing a document on a typewriter against a word processor. (6 Marks)

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(c ) State three advantages and three disadvantages of using interview method in information gathering. (6 Marks)

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1. (a) State a suitable course which a student pursue to gain necessary skills for the job of a

computer technician. (2 Marks)

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(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.

* 1. Technical Institute

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* 1. National Polytechnic

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* 1. University (3 Marks)

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

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1. (a) Perform the following binary arithmetic’s and give your answer in decimal notation.
2. 1010 .1012 + 11. 0112 (3 Marks)
3. 1010.0112 - 11.0112 (3 Marks)

(b) Convert the following numbers into their binary equivalents

* + 1. 0.562610 (3 Marks)
    2. 0.312510 (3 Marks)

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

1012 - 1112