****

**Name……………………………………………………………….Adm No………………….**

**School………………………………………………………………Class……………………………..**

**MID TERM ONE EVALUATION - 2019**

**KENYA CERTIFICATE OF SECONDARY EDUCATION**

**PAPER 1**

Form 3

**(Theory)**

**2 hrs**

**INSTRUCTIONS TO CANDIDATES**

* This paper consists of ***two*** sections: **A** & **B**.
* Answer ***all*** the questions in section **A**.
* Answer question **16** and any other ***three*** questions from section B.
* **DONOT ANSWER MORE THAN REQUIRED QUESTIONS**

|  |  |  |
| --- | --- | --- |
| **Section** | **Question** | **Score** |
| **A** | **1 – 15** |  |
| **B** | **16** |  |
| **17** |  |
| **18** |  |
| **19** |  |
| **20** |  |
|  | **Total Marks** |  |

**SECTION A:** (40 marks)

***Answer All Questions in this section***

**1.** For each of the following generation of computers, State the **technology** used to control internal operations. (2marks)

 i). 1st Gen………………………………………………………………………………………………..

 ii). 2nd Gen……………………………………………………………………………………………….

 iii). 3rd Gen……………………………………………………………………………………………….

 iv). 4th Gen………………………………………………………………………………………………..

**2.** State the **action of** the following **mouse techniques** given below:

 a). Click (1mark)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

 b). Right click (1mark)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

 c).Double click (1mark)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

**3.** Distinguish between **cold** and **warm booting**. (2marks)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

**4.** a) Explain the term **plug and play** as used in USB technology (2Marks)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

 b). A computer virus is malicious software which may affect the smooth running of a computer system or carry out illegal activities in the computer.

1. Name **three** types of computer viruses and state the effect of each when it gets in to a computer (3 marks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. State any **two** methods to control infection of a standalone computer by virus (2 marks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

**5.** a). State one **importance** of the following **disk management techniques**

 i). Disk defragmentation (2 marks)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

 ii). Disk partitioning (2 marks)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

**6.** Explain the meaning of the terms below as used in data communication.

 i). digital signal (1mark)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

 ii). Analog signal (1mark)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

**7.** While purchasing computers for his school, the Principal of Njonjo High school preferred

a 6 months warranty option other than that of 1 year from the selling company. List TWO factors that might have led him to do so. (2 marks)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

**8.** a) A worksheet contains data as shown below

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Cell | **A1** | **A2** | **A3** | **A4** | **A5** | **A6** |
| Entry | 75 | 50 | 62 | 84 | 42 |  |

 Write the formula to be entered in cell A6 to display the sum of values above 60. (2marks)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

9. (a) Differentiate the **absolute** and **relative** cell addressing (2 Mark)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

 (b) Explain any **two causes** of errors in data processing. (2 Marks)

………………………………………………………………………………………………………………

………………………………………………………………………………………………………………

1. **Give three** main ways of classifying computers. (1½Marks)

………………………………………….…………………………………………………………………..

………………………………………….…………………………………………………………………

1. Peter was sent to buy computers for the students' laboratory. He was supposed to take into account the

following factors.

* Processor speed
* Memory capacity
* Compatibility

Explain the meaning of **compatibility**  (2Marks)

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

1. Briefly discuss the term **hot swapping**  (2Marks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………

1. **State any two** factors to be considered when selecting hard copy output devices. (2Marks)

……………………………………….………………………………………………………..……………

………………………………………….……………………………...……………………………………

1. **State four** benefits of using a computer in a school library. (2Marks)

……………………………….………………………………………………………………………….

………………………………………….………………………………………………………………

**15.** Most operating systems provide a *file system*. Mention any **TWO** file systems used in windows

 environment (2marks)

………………………………………….……………………………...……………………………………

………………………………………….………………………………………………………..…………

**SECTION B (60 MARKS)**

**Answer question 16 (Compulsory) and any other three questions from this section**

**DONOT ANSWER MORE THAN REQUIRED QUESTIONS**

16. (a) Convert the **11101.01102** - (2 marks)

 (b) Use 8 bits **ones compliment** solve 510-210 (4 marks)

 (c) Use 8 bit **twos compliment** work out 510-210 (4 marks)

 (d) **ADD** 11101.11012 + 11011.0112  (3 marks)

(e) **ADD** 10001.012 + 1001.012  (2 marks)

17 (a) As regards to computer **databases**, what you understand by the following terms:

 i) Queries (1 mark)

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

 ii) Reports (1 mark)

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

 (b) Explain the following database models (6 marks)

* Relational
* Hierarchical
* Network mode

(c) Give 3 characteristics of a primary key (3 marks)

(d) Why is it **not advisable** to use *NAME, CLASS, FORM, DATE, TIME, YEAR* as field names?

 Give the solutions for customizing such field names (4 marks)

18.a) What is the meaning of the following as used in word-processing: (2Marks)

* 1. Word wrap

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

 ii) Drop caps ………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

 b) Explain the terms as used in spread sheets (2Marks)

 i) Sheet tabs

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

* 1. Formula bar

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

* 1. Give three **operators** used in spread sheets. (3Marks)

………………………………………….…………………………………………………………………

………………………………………….…………………………………………………………………

 c) . Use the data given in the Excel worksheet below to answer questions that follow.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | A | B | C | D |
| 1 | NAME | CLASS | AGE | GAME |
| 2 | MARK | 1W | 13 | RUGBY |
| 3 | KEN | 1W | 14 | FOOTBALL |
| 4 | BILL | 1S | 14 | RUGBY |
| 5 | DAVE | 1W | 15 | RUGBY |
| 6 | BOB | 1S | 15 | FOOTBALL |
| 7 | JACK | 1W | 14 | FOOTBALL |

1. Write a formula to count the number of students who play Rugby. (1mk)

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

1. Write the results after filtering students who play football and their class is 1W. (1mk)

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

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

 d) i) Differentiate between **worksheet** and **workbook** (2Marks)

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

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

 ii) List **two** types of spreadsheets. (2Marks)

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

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

(e) List **3 components** of a spreadsheet (3 marks)

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

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

19. a) Discuss any **two requirements** to connect to the internet (2Marks)

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

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

b) Using an illustration describe how **modulation** and **demodulation** is achieved (4Marks)

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

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

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

c) Distinguish between **search engine** and **browser**  (2Marks)

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

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

d). State ***TWO*** services offered by the internet today

. (2Marks)

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

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

e) . Explain any **three emerging issues** in the internet nowadays (6 marks)

20. (a) What is the difference between **kerning and tracking** as used in DTP (2 marks)

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

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

(b) Name and give the functions of the following labeled tools in DTP (6 marks)



d) Give **3 reasons** why DTP software is better than a word processor (3Marks)

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

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

 (e) Distinguish between **layout based** and **graphical based** DTP software and give an example in

 each case (4 Marks)

 **This is the last printed page – *Don Gichai-0727400954***