**COMPUTER SCIENCE**

**23/10/2019**

**2:00 pm - 5:00pm**



**SENIOR FOUR END OF YEAR EXAMINATIONS, 2019**

**SUBJECT: COMPUTER SCIENCE**

**COMBINATIONS:**

**MATHEMATICS- PHYSICS- COMPUTER SCIENCE (MPC)**

**MATHEMATICS-COMPUTER SCIENCE –ECONOMICS (MCE)**

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|  **/100** **Marks:** |

**DURATION: 3 HOURS**

**INSTRUCTIONS:**

All questions are compulsory (**100 marks**)

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1) Define a Computer **(3 marks)**

2) Discuss the Characteristics of Read Only Memory (ROM) **(3 marks)**

3 ) Outline the procedure you would follow to put out fire in a computer lab that may have been caused by electrical fault. **(3 marks)**

4) State three hardware requirements to be considered when installing application software.

 **(6 marks)**

5) Demonstrate and outline steps on how to access the disk management utility. **(4 marks)**

6 ) Define a Flowchart **(3 marks)**

7) Give an illustration of the following logic gates: NOT, AND **(4 marks)**

8 ) State three advantages of using functions. **(6 marks)**

9) Convert the following code segment into switch case construct. **(4 marks)**

int ch;

cin>>ch;

If(ch = = 1)

{ cout<<“ Laptop”;

}

else If(ch = = 2)

{

cout<<“Desktop ”;

}

else if(ch= = 3)

{

cout<<“Notebook”;

}

else

{

cout<<“Invalid Choice”;

}

}

10 a) Convert an octal number (345)8 to a binary number **(2 marks)**

 b) Convert binary number (10011101)2 to decimal **(2 marks)**

11) To reference storage of a variable in main memory, two operators,

namely size of and address of (&) may be used, differentiate between the two operators.

 **(4 marks)**

12) Write the following acronyms in full: NTFS **(2 marks)**

13 Explain two component of CPU **(4 marks)**

14 a) Justify the reason why smartphones need an operating system. **(4 marks)**

 b) List six functions of the operating system. **(6 marks)**

15 a) Write the following acronyms in full: **(2 marks)**

(i) HTML

 (ii) XHTML

 b) Write down html code that print the following **(8 marks)**

First Name: 
Last Name: 
Password: 

16) Write program using an array to store 10 integers and show them. **(10 marks)**

17) Compare the advantages and disadvantages of high-level languages. **(10 marks)**

18) Write an algorithm which receives two numbers and informs the user whether their product is positive or negative. **(10 marks)**