MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATION

2021/2022 ACADEMIC YEAR

SCHOOL OF BUSINESS AND ECONOMICS

BACHELOR OF COMMERCE

YEAR TWO SEMMESTER ONE

COURSE CODE: BCM 2103

COURSE TITLE: INTRODUCTION TO PROGRAMMING

DATE: 4 TH APRIL,2022   **TIME: 0230-0430HRS**

INSTRUCTIONS:

ANSWER **QUESTION ONE** AND **ANY** OTHER **Two** QUESTIONS.

The marks given in brackets are indicative of the weight given to each part of the question.

QUESTION ONE.

a) Discuss the following types of errors

    I.   Syntax errors   **(2marks)**

    II.   Logical errors   **(2 marks)**

    b) Briefly explain five characteristics of a good program.   **(5 marks)**

    c) Write a for loop to initialize the following array (int data[10])

        with the values 10, 9, 8... 1.   **(4 marks)**

    d) Explain the following terms as used in computer programming.

    i.   Compiler   **(2 marks)**

    ii.   Algorithm   **(2 marks)**

    e) Briefly describe the rules of constructing identifier names in C programming language.   **(3 marks)**

QUESTION TWO

a) Briefly describe the program development lifecycle stages in their logical order.
    (10 marks)

    b) Describe five characteristics of a good programming language.   **(5 marks)**

QUESTION THREE

a) What is the output of the following program.   **(2 marks)**

```
# include <stdio.h>

int main()

{

int Total=0,i;

for(i=0;i<10;i++)

{
Total+=i; // This is same as Total = Total+i}
```

```c
    printf("Total = %d", Total);

    }
```

b) What is the output of the following program.   **(3 marks)**

```c
#include <stdio.h>

int main()

{

int i=0;

while(++i < 5 )

{

printf("%d ",i);

}

return 0;
```

c) Differentiate between Global variables and local variables as used in C programming Language. **(4 marks)**

d) Discuss on the three various programming techniques.**(6 marks)**

QUESTION FOUR.

a) Explain what are logical operators and illustrate by using examples in each one of the three types of logical operators. **(3 marks)**

b) Discuss on the following terminologies as used in C programming

i.	Top-down decomposition	**(3 marks)**
ii.	Bottom up integration	**(3 marks)**
iii.	Bug	**(2 marks)**

c) Explain the role of each the following string functions as used in C language. **(4 marks)**

i. Strcat ( )
ii. Strlwr ( )

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