



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATION
2022/2023 ACADEMIC YEAR
SECOND YEAR SECOND SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF COMMERCE**

**COURSE CODE BCM 2103
COURSE TITLE: INTRODUCTION TO COMPUTER
PROGRAMMING**

DATE: 15TH DECEMBER 2022

TIME: 1100-1300

INSTRUCTIONS:

Answer question one and any other two questions

QUESTION ONE

(20 MARKS)

- a) You have been invited for an interview at a software development company in Narok County. You are required to explain FOUR qualities of a good program. (4 marks)
- b) Write a C program to prompt the user to input her/his age and print it on the screen, as shown below:
Your age is 20 years old. (4 marks)
- c) With the aid of a C program distinguish between variable declaration and variable initialization. (4 marks)
- d) Explain any FOUR basic data types used in C programming. (4 marks)
- e) As an expert in C programming language, explain FOUR categories of C functions. (4 marks)

QUESTION TWO

(15 MARKS)

- a. Explain how constants are used in C programming. (1 marks)
- b. Distinguish between the following as used in programming:
 - i. Object code and source code. (2 marks)
 - ii. Compiler and interpreter. (2 marks)
- c. Elaborate the importance of using functions in C programming. (6 marks)
- d. Discuss the following types of errors
 - i. Syntax errors (2marks)
 - ii. Logical errors (2 marks)

QUESTION THREE

(15 MARKS)

- a) Explain the main differences between “while loop” and “do...while loop”. (2 marks)
- b) Describe any FOUR arithmetic operators used in C programming. (4 marks)
- c) Using a program, explain the use of logical operators. (6 marks)
- d) What is the output of the following program? (3 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  
  
}  
  
printf("Total = %d", Total);  
  
}
```

QUESTION FOUR

(15 MARKS)

- a) Explain any TWO characteristics of C programming language. (2 marks)
- b) Outline FOUR rules for constructing identifier name in C programming. (4 marks)
- c) Briefly describe the system development lifecycle stages in their logical order. (6 marks)
- d) What is the output of the following program? (3 marks)

```
#include <stdio.h>  
  
int main()  
{  
  
int i=0;  
  
while(++i < 5 )  
  
{  
  
printf("%d ",i);  
  
}  
  
return 0;  
  
}
```

///End ///