MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATION
2023/2024 ACADEMIC YEAR
SECOND YEAR FIRST SEMESTER

SCHOOL OF BUSINESS AND ECONOMICS
BACHELORS OF COMMERCE

COURSE CODE: BCM 2103-1
COURSE TITLE: INTRODUCTION TO COMPUTER PROGRAMMING

DATE : 13/12/2023   TIME: 1430-1630 HRS

INSTRUCTIONS TO CANDIDATES

Answers Question one and any other Two

QUESTION ONE

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) Briefly describe the TWO approaches to modular programming **(4 Marks)**

d) Explain any Three features that make high level languages the preferred ones over machine

code and assembly programming languages **(3 Marks)**

e) i) Highlight TWO uses of functions in modern programming languages. **(2 Marks)**

ii) Write a C main() function that finds the length of a typed string value. **(3 Marks)**

QUESTION TWO

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

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()
```

```c
{

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

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)**

```c
#include <stdio.h>

int main()

{

int i=0;

while(++i < 5 )

{

printf("%d ",i);

}

return 0;

}
```

/End /