



Kasarani Campus
Off Thika Road
Tel. 2042692 / 3
P.O. Box 49274, 00100
NAIROBI
Westlands Campus
Pamstech House
Woodvale Grove
Tel. 4442212
Fax: 4444175

KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR
FIRST YEAR, FIRST SEMESTER EXAMINATION
FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY
CIT 1002 STRUCTURED PROGRAMMING

Date: 9TH AUGUST 2024

Time: 11:30AM – 1:30PM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Variables are used to store different kind of data. Distinguish the types of variables. (4 Marks)
- b) Programmers are prone to errors while coding. Discuss the different types of errors that are identified in C programs. (5 Marks)
- c) Highlight the advantages of C program over other programming languages. (5 Marks)
- d) In this error of technology, there are variety of computer languages. Briefly describe the computer languages classifications. (5 Marks)
- e) Computers are used in coding but they only understand the binary (0,1) numbers. Describe the various translating tools used in C programming language. (5 Marks)
- f) A programmer has to follow steps to create a standardized software. Explain the steps to be followed in the program development. (6 Marks)

QUESTION TWO (20 MARKS)

- a) Explain the following program step by step; (8 Marks)

```
// This is a C program
#include<stdio.h>
main ()
{
float weight;
weight=64.7;
printf("My weight is:\n %f", weight);
return 0;
}
```
- b) A constant is a value that does not change during program execution. State the basic types of constants in C programming language. (6 Marks)
- c) Control structures represent the forms by which statements in a program are executed. Discuss the conditional statements used in C programming language. (6 Marks)

QUESTION THREE (20 MARKS)

- a) Write C program codes that displays this exact output (8 Marks)
Output:

This is line one
This is line two
This is line three
This line four

- b) State the arithmetic operators used in C programming language and demonstrate their functions using well elaborate examples. (7 Marks)
- c) Using the operator precedence, explain how the following expression would be evaluated step by step;

top = score - (2*5) + 6 * (4+3) + (2+3)
where score =30

(5 Marks)

QUESTION FOUR: (20 MARKS)

- a) Write a C program that uses symbolic constant to;
- i) Allow the user to enter values and (5 Marks)
- ii) Calculates the area of a circle (5 Marks)
- b) Explain the different data types used in C programming language. (5 Marks)
- c) Give examples in each data type mentioned above. (5 Marks)

QUESTION FIVE (20 MARKS)

- a) Describe the rules to be followed in operator precedence in C programming language. (4 Marks)
- b) State and explain the six operators in C programming language that form logical expressions. (6 Marks)
- c) Use 'for' loop to create a C program that displays your first name ten times. (10 Marks)