KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR
FIRST YEAR, FIRST SEMESTER EXAMINATION
FOR THE DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY
DIT 1002 – STRUCTURED PROGAMMING

Date: 11TH December 2023

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Time: 8:30AM – 10:30AM

INSTRUCTIONS TO CANDIDATES
ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS
QUESTION ONE (30 MARKS)

a)   The four relational operators together with two equality operators are known as logical expressions. Highlight the six logical expressions operators   (6 Marks)

b)   Explain the reasons why C language is popularly used over other programming languages in this era of technology   (3 Marks)

c)   Write a simple C program script that shows the difference in the use of printf() a**nd scanf() functions**   (4 Marks)

d)   State the various control structures u**sed in C programming language**   (6 Marks)

e)   Define high level language and list high level languages used in programming   (5 Marks)

f)   The elements of C programming language are like the main parts of the C codes. Explain the three main parts   (6 Marks)

QUESTION TWO (20 MARKS)

a)   Discuss the various tools used to transform the instruction prepared by programmers into a form which can be interpreted and executed by the computer   (8 Marks)

b)   Write a C program that displays the use of backspace or escape sequence and outputs three lines   (8 Marks)

c)   Explain files used in C program to ensure that the program runs   (4 Marks)

QUESTION THREE (20 MARKS)

a)   Calculating the volume of a cylinder using floating point numbers is challenging for most of the students. Create a simple system that prompts the student to enter values and calculates the volume of a cylinder (10 Marks)

b)   Following is a simple sample of a C program

```
/* This is my first C program,
    as junior programmer*/
#include<stdio.h>
main()
{
printf("Diploma in Information Communication Technology \n"); // the output
return 0;
}
```

Discuss a stepwise explanation of the above sample program   (10 Marks)

QUESTION FOUR (20 MARKS)

a)   C supports four main constant types. Define a constant, discuss the data types along with the C
     keywords that represent them and Give examples of each   (10 Marks)

b)   Write a C program using a 'for' control structure to output values 49 to 0   (10 Marks)

QUESTION FIVE (20 MARKS)

a)   Discuss the order of executing the following expression in C programming language and write a
     program to calculate the following.   (10 Marks)

$$book = 250.0 + 600.0 * z / sheet;$$
Where z = 50.0 and sheet= 20.0.

b)   Write a C program that prompts the user to enter four integer values and sums up the four values
                                                                                             (10 Marks)