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

Date: 18TH APRIL 2022
Time: 8:30AM – 10:30AM

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

QUESTION ONE (30 MARKS)

a)   Define the term escape sequence and indicate escape sequence used in C program with their functions   (4 Marks)

b)   While coding, a programmer might make mistakes which may or may not be identified by the compiler. Discuss the different types of errors in C programming language   (6 Marks)

c)   Explain the term variable and state the various types of Variables in C Programming Language   (4 Marks)

d)   Highlight the rules that are applied to all numeric-type constants in C programming language   (3 Marks)

e)   Write a simple C program that displays your name on the screen once   (5 Marks)

f)   Highlight the four basic types of constants in C language, give examples   (4 Marks)

g)   Differentiate between low level language and high-level language   (4 Marks)

QUESTION TWO (20 MARKS)

a)   A computer is a machine that doesn't understand the alphabets and numeric used by programmers while programming. Discuss the tools used to transform the instructions prepared by programmers into a form which can be interpreted and executed by the computer   (8 Marks)

b)   IT student in KWUST wants to develop a program. Describe steps she should follow in program development to ensure the program is easy to read, test, debug and modify   (8 Marks)

c)   Explain some of the reasons that make C language a popular language in the programming world   (4 Marks)

QUESTION THREE (20 MARKS)

a)   Explain components that make up a typical C program   (6 Marks)

b)   Describe files used in C program and indicate the file extension of each file (4 Marks)

c)   Write simple program in C language that prompts the user to enter two values and calculates the product   (10 Marks)

QUESTION FOUR (20 MARKS)

a) Write C program that can be used to output zero to nine using a 'do-while' loop   (10 Marks)

b) Write a program that computes the area of a rectangle, given its dimensions. It first prompts the user for the length and width of the rectangle and then displays the area   (10 Marks)

QUESTION FIVE (20 MARKS)

a) Highlight the various arithmetic operators in C language   (5 Marks)

b) Define the term array and explain the various array dimensions   (5 Marks)

c) Write a simple C program that contains array to illustrate how you can access an array element   (10 Marks)