MAIN

MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

Y1S1 DIPLOMA IN INFORMATION TECHNOLOGY

CIT 2112:FUNDAMENTALS OF COMPUTER PROGRAMMING

TIME:$1^{1}/_{2}$ HOURS

INSTRUCTIONS: *Answer question **one** and any other **two** questions*

QUESTION ONE (30 marks)

(a) Differentiate between the following terms as used in computer programming.

(i) Translator and programming language. (2 marks)

(ii) Complier and Interpreter (2 marks)

(b) Outline two benefits of modular design.(2 marks)

(c) Briefly describe the stages of program development. (8 marks)

(d) Write a program that displays ten consecutive numbers starting from 50. (5 marks)

(e) Outline the rules for naming variables in C programming. (2 marks)

e) Identify four benefits of flow charts in program planning. (4mks)

f) Write a program that prompts for the input of an integer number, determines whether it's odd or even and then outputs the answer appropriately. (5 marks)

QUESTION TWO (15 MARKS)

a) Suppose x, y and z are integer variables that have been assigned the values x=2, y= 4 and z=-6. Determine the value of each of the following expressions

i. 2 * y + 3 * (x-z) (2 marks)

ii. (x * z) % y (2 marks)

b) Define an array and using an example Declare a two dimensional array called student. **(4 marks)**

c) Explain any two repetitive structures used in programming. **(4 marks)**

d) Describe two types of programming errors and identify the possible causes of each.? (4mks)

QUESTION THREE (15 MARKS)

a) What's the difference between a *for* statement and a *while* statement? Give the syntax for each. (**4 marks)**

b) Write a function that receive two numbers as argument and returns the value of their product. **(5 marks)**

c) Describe the three fundamental building blocks of structured programming.**(6 marks)**

QUESTION FOUR (15 MARKS)

a. Explain two types of operator is used in programming.(**2 mark)**

b. Using a loop, Write a program that prints out; **(4 marks)**

20
22
24
26

c. Write a C program to print the sum of all odd integer numbers between 1 to 50.Use do while loop. (6 marks)

d. Explain three methods used for testing a program for errors. (3 marks)