



MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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University Examinations 2023/2024

FIRST YEAR, SECOND SEMESTER EXAMINATION FOR THE CERTIFICATE IN
INFORMATION TECHNOLOGY

CIT 1212: STRUCTURED PROGRAMMING

DATE: APRIL 2024

TIME: 1¹/₂ HOURS

INSTRUCTIONS:

1. Answer Question ONE, and any other TWO
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QUESTION ONE (30 MARKS)

- a) Define each of the following terms as used in programming (4 Marks)
- i. Program
 - ii. Programming language
 - iii. Interpreter
 - iv. Datatype
- b) Name two ways in which arguments are passed to a function in c programming (2 Marks)
- c) Differentiate between modular and object-oriented programming (4 Marks)
- d) Identify four key elements of a switch case control structure (4 Marks)
- e) Define a control structure? (2 Mark)
- f) Describe the syntax of a for loop (4 Marks)
- g) Ochieng, an experienced programmer wishes to design a system using the modular
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approach. Explain three advantages he is likely to derive from using this approach

(6 Marks)

f) Explain two advantages of using functions in a program

(4 Marks)

QUESTION TWO (15 Marks)

a) Name five primitive datatypes in c programming language

(5 Marks)

b) List five features that make C as a programming language popular

(5 Marks)

c) Write a program in C that prompts the user to enter the amount of fees paid. When the amount of fee paid is less than KShs 20000, the program displays the message services denied.

(5 Marks)

QUESTION THREE (15 MARKS)

a) Write a c program to reverse the characters in your name

(3 Marks)

b) Write a C program that can be used to generate the following output

(4 marks)

```
* * *  
* *  
*
```

c) Explain the strlen() function as used in C programming language

(4 marks)

d) Explain the difference between 'int' and 'float' data types in C.

(4 marks)

QUESTION FOUR (15 Marks)

a. Define the term "programming language" and briefly explain the importance of C in the world of programming.

(4 marks)

b. Write a C program to display the message "Hello, World!" on the screen.

(5 marks)

c. Discuss the differences between 'for' and 'while' loops in C, and provide an example for each.

(6 marks)

