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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2018/2019 ACADEMIC YEAR
CERTIFICATE IN BUSINESS INFORMATION TECHNOLOGY

CIT 1002- STRUCTURED PROGRAMMING

Date: 13th August, 2018
Time: 8:30Am- 10.30 Am

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Distinguish between the following terms
- i) Local variable and global variable (2 Marks)
- ii) Object code and source code (2 Marks)
- iii) Compiler and interpreter (2 Marks)
- iv) Constant and variable (2 Marks)
- b) Describe six advantages of C programming over other programming languages (6 Marks)
- c) With exemplification, analyze three types of program errors (6 Marks)
- d) Elucidate any two features of a good programming language (2 Marks)
- e) Elaborate the following terms
- i) Top down design and bottom up design (4 Marks)
- ii) Union and structure (4 Marks)

QUESTION TWO (20 MARKS)

- a) Discuss the steps followed in program development (8 Marks)
- b) An IT student want to create a C program that compute the area of a circle after reading the radius from the user
- i) Write a pseudo code (4 Marks)
- ii) Draw a flow chart the student will use (4 Marks)
- iii) Write the program (4 Marks)

QUESTION THREE (20 MARKS)

- a) i) Describe the importance of the function prototype (3 Marks)
- ii) Define the term recursive function (2 Marks)
- iii) Highlight any three benefits of using a function (3 Marks)
- b) Expound the three levels of programming languages (6 Marks)
- c) Define the term array (2 Marks)
- d) Enumerate four variable naming rule that are used in C programming language (4 Marks)

QUESTION FOUR (20 MARKS)

- a) Using an example declare a pointer (2 Marks)
- b) Illustrate the three control structures used in programming (6 Marks)
- c) A program is required to process and award students grades for students in a class according to the following summary table.

%	
00	
9	
9	
40	

Write a C program that prompts the user for the student's Marks and outputs the appropriate grade using nested if else statement. The else option should print an error message "Wrong Marks"

(6 Marks)

- d) There are several operators in C language. Define an operator and discuss any three data operators (6 Marks)

QUESTION FIVE (20 MARKS)

- a)
 - i) Define a data type (2Marks)
 - ii) Explain the categories of data types in C Programming Language. (8 Marks)
- b) Discuss the two methods of including comments in your C program (2 Marks)
- c) Describe why the function main () is special in a c program (2 Marks)
- d) Explain three classification of the programming languages (6 Marks)