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UNIVERSITY OF DAR ES SALAAM

COLLEGE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

IS 136: TEST TWO   Date: Friday 6th June, 2014

Instructions:

- Time: 50 Minutes
- Attempt all questions. This test carries a total of 15 marks.

Question One: (4.5 marks)

With examples briefly explain the difference between the following terminologies as applie to C programming, provide example to support your explanation.

a) Primary data type vs. Secondary data types

b) Passing by Value vs Passing by reference

c) Automatic storage class vs external storage class

Question Two: (5.5 marks)

a) How are the elements of an array stored in memory?

b) Write a programme which declares two-dimensional array called **subjects** with sever rows and two columns. Assuming that these columns represent subjects, **physics** anc **mathematics**, the code fragment should accept marks for these two subjects from the keyboard. For Physics, the program has to check, if the marks entered is less than 40, it should assign it to 40.

Question Three: (5 marks)

Write a program which takes in the value of a radius and an integer value for choice. If choice is 1 then the program should call a function to compute and return an area of a circle. If choice is 2, the program should call a function to compute and return a circumference.