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**University Examinations 2014/2015**

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN COMPUTER SCIENCE

**CCS 3329: PROGRAMMING PARADIGMS**

**DATE: APRIL 2015 TIME: 2 HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Explain the following: (6 Marks)
2. Linker
3. Debugginh
4. Program testing
5. Explain the three control structures in structured programming (6 Marks)
6. Given that the even numbers E, from 0 to 50 are to be generated, stored in E and later displayed in the output, represent each of the three control structure in a flow-chart

(8 Marks)

1. State four characteristics of a good programming language (4 Marks)
2. Explain the following: (6 Marks)
3. Structured programming
4. Modularity
5. Top down approach
6. Bottom up approach

**QUESTION TWO (20 MARKS)**

1. State four benefits of structured programming (4 Marks)
2. Write a short program that will generate the following output (5 Marks)

Mr. Jack is 30

Mrs. Owino is 52

1. State six main steps in a program development life cycle (6 Marks)
2. Outline any five advantages of object oriented programming methodology (5 Marks)

**QUESTION THREE (20 MARKS)**

1. Explain the process of transforming a high level language into a running form detailing the contents of any file created (8 Marks)
2. Explain the basic structure of a C source file (6 Marks)
3. Explain the following programming language and give examples in each
4. Machine language
5. Assembly language
6. High level language (6 Marks)

**QUESTION FOUR (20 MARKS)**

1. Using the **IF** … **ELSE** control structure, write a C program that will prompt the user to enter two numbers from the keyboard. The program selects and prints the largest of the numbers entered (10 Marks)
2. Explain two types of errors in programming giving a suitable example (6 Marks)
3. State four rules to be observed when declaring variables as identifiers in programming

(4 Marks)

**QUESTION FIVE (20 MARKS)**

1. Using **DO…WHILE** loop, write a C program that will output the sum of the square of odd integers between 1 and 15 (10 Marks)
2. In reference to computer programming differentiate between (8 Marks)
3. Computer programming and programming language
4. Syntax and semantic
5. Explain program portability (2 Marks)