MACHAKOS UNIVERSITY COLLGE

UNIVERSITY EXAMINATIONS

2014/2015 ACADEMIC YEAR

SCHOOL OF BUSINESS AND ECONOMICS

DEPT OF BUSINESS ENTREPRENEURSHIP AND MANAGEMENT SCIENCE (BEMS)

UNIVERSITY EXAMINATIONS FOR THE DEGREE OF BACHELOR OF COMMERCE

YEAR II SEMESTER I

COURSE CODE: BMS201

COURSE TITLE: COMPUTER PROGRAMMING

DATE: **TIME: 2 HOURS**

INSTRUCTIONS

- Answer Question ONE and any other TWO.

Question ONE: Compulsory

a. Define computer programming **[2 marks]**

b. List the main parts that make up a C program **[5 marks]**

c. Define the following terms as used in programming **[4 marks]**
   i.   Variable
   ii. Data type
   iii. Function
   iv. Identifier

d. List any FIVE operators that are used by programming languages in program development **[5 marks]**

e. A typical programming task can be divided into two phases. List and Explain the TWO phases **[4 marks]**

f. List any THREE programming languages that can be used to develop computer programs **[3 marks]**

g. List the THREE generations of the High Level Languages **[3 marks]**

h. Define the following terms as used in computing programming **[4 marks]**
   i. Algorithm
   ii. Program

Question TWO:

a. Discuss the key stages in the program development regardless of any programming language to be used in the implementation **[6 marks]**

b. Using a flow chart draw a general form of a typical decision making structure found in most of the programming languages **[5 marks]**

c. Describe the key stages/steps that are needed in the development of an algorithm **[9 marks]**

Question THREE:

a.   Describe the following languages as used in computing **[6 marks]**

i.   Machine languages
    ii.   Assembly languages
    iii.   Higher-level languages

b.   List and Explain at least SIX characteristics of a good programming language   **[6 marks]**

c.   Differentiate between the following terms as used in computer programming **[4 marks]**
    i.   Syntax and Semantics
    ii.   Compile time and run time

d.   List and explain any four classification of data types in C programming   **[4 marks]**

Question FOUR:

a. Discuss the THREE key features of a valid algorithm   **[6 marks]**

b. Discuss any FOUR reasons why an algorithm is very important in problem solving **[8 marks]**

c. With the help of examples in each case, discuss the following types of programming paradigms   **[6 marks]**
    i.   Event Drive Programming
    ii.   Structured Programming
    iii.   Object Oriented Programming

Question FIVE:

a. Write a simple C program that calculates the area of a triangle given the input parameters (values) for the triangle. The program code should include all the key sections in a C program   **[8 marks]**

b. Explaining the meaning of the following conversions as used in C programming **[5 marks]**

    i.   %d or %i :
    ii.   %x :
    iii.   %u :
    iv.   %c :

v. %f:

c. Differentiate between Compile-Time and Run-Time as its used in computer programming **[4 marks]**

d. Apart from C programming List any other THREE programming languages that exits to programmers **[3 marks]**