



MURANG' A UNIVERSITY COLLEGE

**(A CONSTITUENT COLLEGE OF JOMO KENYATTA UNIVERSITY OF
AGRICULTURE AND TECHNOLOGY)**

UNIVERSITY EXAMINATIONS 2014/2015

**YEAR TWO SEMESTER ONE SPECIAL/SUPPLEMENTARY EXAMINATION FOR
THE DIPLOMA IN ELECTRICAL ENGINEERING**

SEE1213: COMPUTER PROGRAMMING IN C/C++

COURSE: DIPLOMA

TIME: 2 HOURS

DAY/TIME: WEDNESDAY 8:30-10:30AM

DATE: 5TH August 2015

Instructions: answer question one and any other two questions

QUESTION ONE

- a) Define the following programming concepts. (5mks)
 - i. Programming language
 - ii. translator
 - iii. interpreter
 - iv. Semantics
 - v. Modules
- b) Write the syntax of a for loop. (2mks)
- c) Explain four types of programming errors (8 mks)
- d) Differentiate between a compiler and an interpreter. (2mks)
- e) Explain five characteristics /features of programming language (4mks)
- f) Write a pseudo code and draw a flow chart that calculate area of a triangle and output result (4 mks)
- g) differentiate between the following conversion characters %s and %c (1mks)

- h) Differentiate between abstraction and encapsulation as used on object oriented programming language (4mks)

QUESTION TWO

- a) Explain two main types of loop control structures. (2mrks)
b) With the aid of a flow chart differentiate between a while and an if statement. (6 mrks)
c) i) Write the syntax of for loop. (1 mrks)
ii) Using a do.....while loop write a program that will output number 1-10. (5 mrks)
d) Describe three types of selection control structure. (6 mks)

QUESTION THREE

- a) State four characteristic of a good algorithm. (2 mrks)
b) With the aid of a diagram explain any three types of inheritance relationship. (6marks)
c) C-Programs go through six phases to be executed. Describe the six phases of execution. (12 mrks)

QUESTION FOUR

- a) i) State the difference between operand and operators. (2mrks)
ii) Explain four types of operators used in programming. (8mks)
b) Write a c-program that will output the following on the screen (6mrks)

OUTPUT

Here are the initials

EWC

The age and number of dependents are:

32 2

The salary and bonus are:

25000.00 575.25

- c) Write a simple c++ program that will output the following. (4mks)

OUTPUT

Hello class

Welcome to our first programming lesson