



MURANG'A UNIVERSITY COLLEGE

(A Constituent College of Jomo Kenyatta University of Agriculture and Technology)

UNIVERSITY EXAMINATIONS 2015/2016

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

SEE1213: COMPUTER PROGRAMMING IN C/C++

COURSE: DIPLOMA

TIME: 2 HOURS

DAY/TIME: Wednesday 8:30Am -10:30Am

DATE: 16th Dec 2015

Instructions: *answer question one and any other two questions*

QUESTION ONE

- a) Define the following programming concepts. (5Marks)
- i. Programming
 - ii. translator
 - iii. operators
 - iv. Syntax
 - v. Modules
- b) Write the syntax of a do...while loop. (2Marks)
- c) Explain four types of programming errors (8 Marks)
- d) Discuss the difference between a flowchart and a pseudocode . (2Marks)
- e) Explain five characteristics /features of programming language (4Marks)
- f) Design a flowchart for a program that can be used to classify people according to age. If a person is more than 20 years; output “Adult” else output “Young person”. (4 Marks)
- g) Differentiate between the following conversion characters %s and %c (1Marks)

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

QUESTION TWO

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

QUESTION THREE

- a) State four characteristic of a good algorithm. (2 Marks)
- 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 Marks)

QUESTION FOUR

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

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. (4Marks)

OUTPUT

Hello class

Welcome to our first programming lesson