



**JARAMOGI OGINGA ODINGA UNIVERSITY School of
Informatics and Innovative Systems**

AUGUST SEMESTER 2013 EXAMINATIONS

COURSE CODE IIT 3112:

COURSE TITLE: INTRODUCTION TO PROGRAMMING

TIME: 2 HRS

Instructions: Answer QUESTION **ONE** and any other **TWO** Questions.

QUESTION ONE: (30 MARKS)

- (a) Define the following terms as used in programming. (4 marks)
- (i) Program
 - (ii) variable
 - (iii) constant
 - (iv) Flowchart
- (b) Outline four **advantages** of high level programming languages. (4 marks)
- (c) Mention **three** translator programs. (3 marks)
- (d) State the **three** control structures. (3 marks)
- (e) Differentiate between syntax and semantics of a language. (2 marks)
- (f) List **three** advantages using flowcharts. (3 marks)
- (g) State **four** common arithmetic operators (4 marks)
- (h) State **two** qualities of a good algorithm. (2 marks)
- (i) Write a C++ program to compute the area of a rectangle. (5 marks)

QUESTION TWO (20 MARKS)

- (a) State **five** IT professional who work with programmers in large projects. (5 marks)
- (b) Write brief notes on high level programming languages. (15 marks)

QUESTION THREE (20 MARKS)

- (a) Using diagrams explain six flowchart symbols. (6 marks)
- (b) Draw a flowchart to input two integer values compare them and return the largest. (10 marks)
- (c) Outline **four** common types of programming errors. (4 marks)

QUESTION FOUR (20 MARKS)

- (a) Identify the errors in the following code snippet and re write it correctly. (10 marks)

```
This is my first program in c++
#include<iostream.h>
using namespace std;
int main
{
int a,b,sum,sub,mul,div;
cout << "enter any two numbers<<endl;
cin>> a>>b;
sum= =a+b;
sub==a-b;
mul= =a*b;
div= =a/b;
cout<<"a="<<a<<"b="<<b<<"sum="<<"sum"<<endl;
cout<<"sub="<<"sub"<<endl;
cout<<"mul="<<"mul"<<endl;
cout<<"div="<<"div"<<endl;
}
```

- (b) Explain **five** relational operators giving an example of a C++ program where any two are used. (10 mark)

QUESTION FIVE

(20 MARKS)

- (a) List **six** skills a system analyst should have. (6 marks)
- (b) Give **two** ways of commenting in C++ language (2 marks)
- (c) Write an algorithm/pseudo code of a program to read three integers and print the largest (12 marks)