



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
ACTUARIAL SCIENCE
3RD YEAR 1ST SEMESTER 2015/2016 ACADEMIC YEAR
RESIT MAIN CAMPUS

COURSE CODE: SCS 308

COURSE TITLE: OBJET ORIENTED PROGRAMMING IN C++

EXAM VENUE: LAB I

STREAM: Actuarial Science

DATE : 04/05/ 2016

EXAM SESSION: 9.00 – 11.00 AM

TIME: 2.00 HOURS

INSTRUCTIONS:

- 1. Answer Question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

QUESTION ONE [30 MARKS]

- a) Discuss inline function (5 marks)
- b) Explain any three concepts of object oriented programming {6marks}
- c) Explain any four data types used in object oriented programming. {4marks}
- d) Write a program in C++ to read the name, age, sex, height and weight of a student and display with proper heading for each variable. (5 marks)
- e) Write a C++ program that prints odd numbers within a given boundary using while loop. (5 marks)
- f) Explain the following with respect to object oriented paradigm.
 - a) Public
 - b) Private. (5 marks)

QUESTION TWO [20 MARKS]

- a) Using appropriate block diagrams, explain any three types of inheritances. (10 marks)
- b) Write an object oriented program to find the greatest number among the four variables a, b, c and d whose values are entered at run time. (10 marks)

QUESTION THREE [20 MARKS]

- a) Explain any FIVE advantages of OOP. (10 marks)
- a) Differentiate the initialization of a one dimensional array with a two dimensional array with C++ programs. (10 marks)

QUESTION FOUR [20 MARKS]

- a) What is meant by function overloading? Explain with a simple C++ program.(10 marks)
- b) Write a program to sort a given set of 'N' numbers in descending order using array. (10 marks)

QUESTION FIVE [20 MARKS]

- a) Explain the concept of polymorphism in relation to object oriented paradigm. (10 marks)
- b) Write short notes on friend function. (10 marks)