



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MATHS AND PHYSICS

UNIVERSITY EXAMINATION FOR:

BACHELOR OF SCIENCE IN MATHEMATICS & COMPUTER SCIENCE

BACHELOR OF SCIENCE IN STATISTICS & COMPUTER SCIENCE

EIT 4153: OBJECT ORIENTED PROGRAMMING I

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date Select Month 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question 1

a) Briefly explain the following terms as used in Object Oriented Programming

- i. overriding
- ii. overloading

[4marks]

b) Using an appropriate example explain the following concepts as used in Object Oriented Programming

- i. Access modifier
- ii. constructor

[6marks]

c) Briefly state the two forms of putting comments in C++ programming

[4marks]

d) Write a short statement in C++ to distinguish the following concepts as used in C++

- i. Preprocessor directive
- ii. Function definition

iii. Constant declaration

[6marks]

e) Distinguish between the following types of statements as used C++ programming

- i. Do..while and while statements
- ii. If ..else and switch statement

[4marks]

f) State any THREE features of C++ language

[6marks]

Question 2

a) Write a Object Oriented program that :

- i. Has three integer variables(a,c)
- ii. Initializes them with values accepted as input
- iii. Finds the largest value of the 2 values
- iv. Displays the largest value with a message “this is the largest value”

[10marks]

b) Briefly explain the meaning of the following objects in C++

- i. float
- ii. iostream
- iii. main
- iv. void
- v. #include

[10marks]

Question 3

a) Write the output of each of the following statements

- i. `((2==3)&&(2==2));`
- ii. `Cout<<"hellow"<<"world"<<"again\n\n";`
- iii. `Cout<<a<<b<<c;`
- iv. `Cout<<a<<"<<b<<"<<c;`
- v. `Cout<<"x\nxx\nxxx\nxxxx\nxxxxxx\n";`

[10marks]

b) Write a Object Oriented program that inputs three different integers and does the following:

- i. Displays the 3 integers
- ii. Determines the largest
- iii. Displays the largest

[10marks]

Question 4

a) Write the meaning of the following symbols in C++

- i. {
- ii. --
- iii. ::
- iv. !=
- v. #

[10marks]

b) Write Object Oriented program that:

- i. Accepts a number between 1 and 7 as input
- ii. Displays the name of the Weekday corresponding to the number

[10marks]

Question 5

Write a Object Oriented program that :

- i. Has a class called circle whose data member is radius and pi, method members are constructor, setsize() and calculatearea()
- ii. Accepts radius and as input
- iii. Displays the area of the circle

[20marks]