LAGOS CITY POLYTECHNIC, IKEJA

SCHOOL OF ENGINEERING AND APPLIED SCIENCE

DEPARTMENT OF COMPUTER SCIENCE

2015/2016 SEMESTER EXAMINATION

COURSE: OBJECT ORIENTED PROG. LANGUAGE WITH C++ NO OF QUESTION : 7

COURSE CODE: COM 313 TIME ALLOWED: 2½ HRS

FOR WHOM: HND YR I CS PT INSTRUCTIONS:

ANSWER ANY FIVE QUESTIONS

1. (a) What is a pre-processor?

   (b) Write C++ programming language to generate the sum and average of two integers

   (c) Write a C++ program to calculate the area of a trapezium **(Hint: A = Perimeter: = 2* (Length + Breadth));**

2. (a) What are the rules involved in coding C++ programming language

   (b) Enumerate the arithmetic operators supported by both C and C++

1. (a) What are the following expressions in C++ notations

   (i) $X = -B \pm B^2 - 4AC/2A$

   (ii) I = PRT/100

   (iii) A2 2AB + B2

   (iv) PERI = 2 (L + B)

   (v) $A = (1 - r)^N$

   (b) Write C++ programming language to generate the sum and average of two integers

   (c) Write a C++ program to calculate the area of a trapezium **(Hint: A = Perimeter: = 2* (Length + Breadth));**

4. (a) What are the rules involving in coding C++ program Hello World!

   (b) Define the following Object oriented concepts in C++ programming Language

   (i) Object

   (ii) Classes

   (iii) Inheritance

   (iv) Data abstraction

   (v) Encapsulation

   (vi) Polymorphism

   (c) Differentiate between a variable and constant

3. (a) Write a C++ program using data types in C++ programming language

   (b) Define the following Object oriented concepts in C++ programming Language

   (i) Object

   (ii) Classes

   (iii) Inheritance

   (iv) Data abstraction

   (v) Encapsulation

   (vi) Polymorphism

   (c) Differentiate between a variable and constant

5. (a) Discuss briefly the fundamental data types in C++ programming language

   (b) Dry run the written C++ program below and write out the outputs

```
1   //Operating wit h variables
2   #include<iostream>
3   using namespace std;
4
5   int main()
6   {
7   //declaring variables:
8   int a, b;
9   int result;
10
11  // process:
12  a = 5;
13  b = 2;
14  result = a-b;
15
16  //print out the result:
17  cout << result;
```