Ahmadu Bello University
Department of Mathematics
First Semester CA Test 1 – February 2016
COSC211: Object Oriented Programming I

Time: 60 mins

(*a*) List the six **numeric** primitive data types and state how many bytes of storage each requires.

(*b*) Write a Java program that will calculate and display the surface area and volume of a cylinder given the radius of its cross-section and its height.

The user should be asked to enter the values of the radius and the height. The program should work with double precision and display the results with 2D.

Use the following formulas: $A = 2\pi r(r + h)$, $V = \pi r^2 h$, where A is the surface area, V is the volume, r is the radius and h is the height. Take the value of π to be 3.141 592 653 589 793 (16S).