Lab 2 – Group B

1. Ask user for 2 numbers say X and Y. Now swap the number from Y to X and X to Y. You cannot use more than 2 variables.

   Output should look like this:

   Enter Number X: 5

   Enter Number Y: 6

   Your inputs,

   X = 5, Y = 6

   After swapping,

   X = 6, Y = 5

2. Given an integer number for 5 digits, write a program that displays the number as follows:

   First Line : all digits

   Second Line : all except first digit

   Third Line : all except first two digit

   …. …….

   Last line : last digit

   For example, the number 12345 will be displayed as

   12345

   2345

   345

   45

   5

3. Write a program to print the address of a variable. For this ask user for a floating-point number, store it in a variable. Now you can show the value of the floating-point number and its address. Hint: Use Address Operator

4. An equation of the form

$$ax2 + bx + c = 0$$

is known as the quadratic equation. The values of x that satisfy the equation are known as the roots of the equation. A quadratic equation has two roots which are given by the following two formulae.

Quadratic Equation:

$$ax^2 + bx + c = 0$$

Quadratic Formulas:

$$\text{Root \#1 (x1)} = \frac{-b + \sqrt{b^2 - 4ac}}{2a}$$

$$\text{Root \#2 (x2)} = \frac{-b - \sqrt{b^2 - 4ac}}{2a}$$

$$\text{Determinant} = b^2 - 4ac$$

The program should request the user to input the values of a, b, c and output root1 and root2.