IECS 103 Introduction to Computer Science Lab I
Lab 8

1. Test the following program. Pay attention to the value of x in each printf.

```
#include <stdio.h>
void local (void);
void statics (void);
void global (void);
int x = 10;
void main ()
{
        int x = 15;
        printf ("%d\n", x);
        {
                int x = 27;
                printf ("%d\n", x);
        }
        statics ();
        local ();
        global ();
        statics ();
 }
 void local ()
 {
        int x =125;
        printf ("%d\n", x);
        x--;
        printf ("%d\n", x);
 }
 void statics ()
 {
        static int x = 5;
        printf ("%d\n", x);
        x++;
        printf ("%d\n", x);
 }
 void global ()
 {
```

```
        printf ("%d\n", x);
        x *= 8;
        printf ("%d\n", x);
    }
```

2. Write a C function that accepts 4 integer arguments from calling programs and returns the largest integer received. Also write a main program to verify your function.
3. The following function finds the median of three numbers. Rewrite the function so that it has just one return statement.

```
double median (double x, double y, double z)
{
        if (x <= y)
            if (y <= z) return y;
            else if (x <= z) return z;
            else return x;
        if (z <= y) return y;
        if (x <= z) return x;
        return z;
}
```

4. Write a C function that computes the value of the following polynomial.

   $6x^4 + 5x^3 + 4x^2 + 3x + 2$

5. Write a C function that accepts 2 arguments and prints a shape of triangles. The first parameter gives the height of the triangle. The second parameter gives the symbol used to print the triangle. Also write a main program to verify your function.

```
    *
   ***
  *****
 *******
*********
```

Note that for the triangle above, the first argument is 5 and the second argument is '*'.