CO-102 Assignment #1

This is to be submitted latest by **24-Feb-2020**

It should be neatly done **on A4 size papers**. No register papers to be used. Programs to be handwritten.

Copying of assignment shall lead to cancellation of assignment of the student.

Q1. Differentiate between compiler and interpreter. Explain their working.

Q2. Differentiate between machine language, assembly language and high level language with their purpose and history.

Q3. Explain the loop control statements (continue, goto, break) with 5 examples each.

Q4. Write the following programs

i)	Print the pyramid pattern
ii)	Use of sizeof operator
iii)	Use of ternary operator
iv)	Sum of digits of a number
v)	Reverse of a number (ex 123 becomes 321)
vi)	Convert days to year, month and days format
vii)	Program to read the integer and print its multiplication table
viii)	Print square, cube and square root of all numbers from 1 to N

Q5. Explain the following programs and show the output.

a)
```c
/* C Program to demonstrate increment and decrement operators */
main()
{
    /*
     * ++i -> i incremented before i is used.
     * --i -> i decremented before i is used.
     * j++ -> j is incremented AFTER j has been used.
     * j-- -> j is decremented AFTER j has been used.
     */
    int i=1,j=1;
    puts("\tDemo 1");
    printf("\t%d %d\n",++i, j++);
    printf("\t%d %d\n",i, j);
    i=1; j=1;
    puts("\n\tDemo 2");
    printf("\t%d \n", i=j++);
    printf("\t%d \n", i=++j);
    i = 0; j = 0;
    puts("\n\tDemo 3");
    if ( (i++ == 1) && (j++ == 1)) puts("Some text");
    printf("\t%d %d\n",i, j);
}
```

b)
```c
#include <stdio.h>
int main()
```

```c
{
        int a=23;
        ;
        ;printf("%d",a);
        ;
        return 0;
}
```

c)
```c
include<stdio.h>
int main()
{
    int n;
    for(n = 7; n!=0; n--)
      printf("n = %d", n--);
    getchar();
    return 0;
}
```

d)
```c
# include <stdio.h>
# define scanf  "%s Geeks For Geeks "
main()
{
  printf(scanf, scanf);
  getchar();
  return 0;
}
```

e)
```c
#include<stdio.h>
int main()
{
  int a = 10;
  printf("%o %x", a, a);
  return 0;
}
```
Q6. Given in class.