

## Lab Assignment 3

MIS 111703060

1. To calculate the mod of any number with any base.

```
(base) hp@shweta:~/Subject/CNS$ gcc mod.c
(base) hp@shweta:~/Subject/CNS$ ./a.out
To quit use ctrl^c.
n mod m.
Enter n: 45
Enter m: 15
45 mod 15: 0
Enter n: ^C
(base) hp@shweta:~/Subject/CNS$
```

2. To write a program for XOR operations

```
(base) hp@shweta:~/Subject/CNS$ gcc xor.c
(base) hp@shweta:~/Subject/CNS$ ./a.out
To quit use ctrl^c.
n xor m.
Enter n: 15
Enter m: 15
15 xor 15: 0
Enter n: 48
Enter m: 12
48 xor 12: 60
Enter n: ^C
(base) hp@shweta:~/Subject/CNS$
```

3. Implement Euclidean algorithm for GCD of two numbers.

```
(base) hp@shweta:~/Subject/CNS$ gcc gcd.c
(base) hp@shweta:~/Subject/CNS$ ./a.out
To quit use ctrl^c.
Enter p: 15
Enter q: 9
GCD: 3
Enter p: 456
Enter q: 154
GCD: 2
Enter p: ^C
(base) hp@shweta:~/Subject/CNS$
```

4. To write a program for shift the bits in left or right by giving shift numbers.

```
(base) hp@shweta:~/Subject/CNS$ gcc shift.c
(base) hp@shweta:~/Subject/CNS$ ./a.out
To quit use ctrl^c.
n left shift/right shift by m.
Enter n: 45
Enter m: 5
Left shift of 45 by 5: 1440
Right shift of 45 by 5: 1
Enter n: ^C
(base) hp@shweta:~/Subject/CNS$
```