

# CYSE-270- Linux System For Cybersecurity

## Assignment –10

### Networking Basics - Subnetting (100 points)

Understanding subnetting takes time and practice. Using the methods covered during the class, fill in the following tables for **Network, broadcast, first IP, Last IP and Max. Hosts in the network.**

The column for IP address should be in Decimal format for each, except number of hosts. (Refer to the examples in the slide for week 10-Networking Basics)

#### Task-A: (50 Points)

Category	IP Address	Binary Format
Address	192.168.100.4	11111111.11111111.11111111.11110000
Netmask	28	11111111.11111111.11111111.11110000
Network address	192.168.100.0	
Broadcast address	192.168.100.15	
First IP	192.168.100.1	
Last IP	14	11000000.10101000.01100100.00000001
Maximum host in the network		11000000.10101000.01100100.00001110

#### Task-B: (50 points)

	170.1.0.0	
Category	255.255.255.192	
Address	170.1.0.0	10101010.00000001.00000000.00000000
Netmask	170.1.0.63	11111111.11111111.11111111.11000000
Network address	170.1.0.1	10101010.00000001.00000000.00000000
Broadcast address	170.1.0.62	10101010.00000001.00000000.00111111
First IP	62	10101010.00000001.00000000.00000001
Last IP		10101010.00000001.00000000.00111110
Maximum host in the network		

### **Extra Credit (10 points)**

Write a bash script to print out 0~10 in shell scripts by using for loop and while loop, respectively? Please submit the screenshot for the script and its output, both.