**ASSIGNMENT NO: 4**

**Title:** Subnetting

**Aim:** Write a program to implement subnetting to find subnet mask

**Objectives:**

1. To understand and learn the concept of IP address, subnet mask and subnetting

**Theory: (Handwritten & Scanned)**

* Student's should write 2 page theory report (Handwritten & Scanned)
  + 1. Introduction to IPv4 & IPv6 along with difference
    2. CIDR [Classless Inter Domain Routing]
    3. Default Subnet Mask for Class A, B, C
    4. Subnetting example

**Output Screenshots:**

* Student's should write/paste Code here with an output (Screenshots/Snaps are not accepted)

**Students Observation:**

* Student's should write their Observations about lab assignment

**FAQ (Handwritten & Scanned)**

* Student's should write Answer for following questions

1. Describe classful and classless IP Addressing scheme with an example.
2. What are different special/reserved Ipv4 addresses?
3. What are uses of subnetting..
4. An organization is granted the block 200.50.100.0.The administrator wants to create 14 subnets.
   1. Find the subnet mask.
   2. Find the number of addresses in each subnet.
   3. Find the first and last IP addresses in subnet 1.
   4. Find the first and last IP addresses in subnet 14.