

Objective

The assignment has been designed to develop the understanding of IP Addressing (Class Full and CIDR) and Sub netting.

Instructions:

Please read the following instructions carefully before solving & submitting assignment:
Assignment should be in your own wordings not copied from internet, handouts or books.
It should be clear that your assignment will not get any credit (zero marks) if:

- The assignment is submitted after due date.
- The submitted assignment does not open or file is corrupt.
- The assignment not submitted in MS Word file format.
- The assignment is copied (from other student or copied from handouts or internet).
- Student ID is not mentioned in the assignment file or name of file is other than student ID.

For any query about the assignment, contact at CS610@vu.edu.pk

GOOD LUCK

Q.1.

How many subnets and hosts per subnet can you get from the network 174.20.0.0/23 Remember for host part at least 2 bits are required?

[10 Marks]

Solution:

The default subnet mask is /16 as the address given is a class B address. The subnet mask in the question is /23
In the given situation number of bits available for subnets are, $23 - 16 = 7$

The number of subnets = $2^7 = 128$ subnets.

Total bits in an IP are 32 while given bits are 23

In the given situation the total numbers of bits available for hosts are, $32 - 23 = 9$

The number of hosts = $2^9 - 2 = 510$ hosts per subnet

Q.2. Write the class name against each IP address given below,

[5Marks]

Solution:

IP Address	Class
122.25.125.10	A
191.228.30.20	B
224.25.239.55/8	CIDR
192.168.88.100/24	C/CIDR
222.127.160.79/19	CIDR