



## NANYANG POLYTECHNIC IT1X62 Network Technology

10. For the following IP address, identify the class, type of address, subnet address and broadcast address:

IP Address	Class Type	Type of Address	Subnet Address	Broadcast Address
76.112.43.21 /8				
223.11.5.12 /24				
132.45.61.34 /16				
112.0.0.0 /8				
192.168.1.255/24				

11. What type of addresses are these:-

- a. An IP address with all binary 1s in the Host Portion

**Answer:**

- b. IP Address 127.0.0.1

**Answer:**

- c. IP Address 129.1.255.255/16

**Answer:**

- d. IP Address 200.255.1.0/24

**Answer:**

- e. An IP address with all binary 0s in the Host Portion

**Answer:**

- f. An IP address with a mix of binary 0s and 1s in the Host Portion

**Answer:**

12. Determine which IP host addresses are valid. Valid means IP addresses which can be used to configure a PC or server for commercial use.

**Step 1 : Check if all decimals are between 0 – 255.**

**Step 2 : Convert host portion to binary to see if it is all binary 0s or 1s.**

**Step 3 : Make sure network portion not 127.X.X.X (loopback) or 0.X.X.X (this network)**

IP Address	Valid Address? (Yes/No)	Why?
160.107.255.255 /16		
155.10.255.1 /16		
18.258.21.16 /8		
197.255.250.0 /24		
97.255.250.0 /8		
100.0.0.0 /8		

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IP Address	Valid Address? (Yes/No)	Why?
127.34.25.189 /8		
201.1.0.255 /24		
128.0.1.255 /16		

13. List the blocks of private addresses that are not routable on the Internet.