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Tutorial 6A - IPv4 Addresses

1.		address is a de nd the same inf						.1.1) for a
2.	A private IP address range is allocated for exclusive use to a particular organization by IANA or ICANN.							
	a. True			b.	False			
3.	A is an address that points directly back to the sender.							
	a. pushk	oack		C.	pullback			
	b. loopb	ack		d.	None of the	ne above		
4.	Which of the following refers to one of a block of addresses reserved for use in sending the same message to multiple interfaces or nodes?							
	a. Unica	ıst address		C.	Physical a	address		
	b. Virtua	al address		d.	Multicast	address		
5.	The of	an IP address i	dentifies	the ne	twork / sub	net portion of	of that addre	ess.
		cal portion		C.	layered po			
	b. loope	d portion		d.	network p	ortion		
6.	The Host portion of a Class B address is long:							
	a. 24 bit	-	C.	8 bits				
	b. 16 bit	S	d.	32 bits	3			
7.	A(n) is the name for the format used to denote numeric IP addresses.							
	a. end-to-end notation c.							
	b. host r	notation	d.	dotted	decimal no	otation		
8.	Fill in the tab	le below for the	corresp	onding	pairs of su	bnet mask /	prefix:-	
	Subn	et Mask	Sı	ubnet P	refix			
	255.2	55.255.0						
	255.2	55.224.0						
				/23				
				/30				
		·				_		
9.	Fill in the tab	le below. Identi	fy which	octet is	s the netwo	ork & host po	ortion for the	following

A	
В	
С	
D	

Network / Host Portion

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Class Type

IP classes. Put *N* for network & *H* for host portion.

1st octet range (decimal)

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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.

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