

Q. A network on the Internet has a subnet mask of 255.255.240.0. What is the maximum number of address can be used for a single host?

A.

Show Answer 4094

Q.A router has the following (CIDR) entries in its routing table:

Address/mask	Next hop
135.46.56.0/22	211.90.0.1
135.46.60.0/22	159.48.0.1
192.53.40.0/23	192.188.0.1
default	220.20.0.1

For each of the following IP addresses, what does the router do if a packet with that address arrives?

A. Write correct IP address of next hop:

No.	IP	Next hop
(a)	135.46.63.10	
(b)	135.46.57.14	
(c)	135.46.52.2	
(d)	192.53.40.7	
(e)	192.53.56.7	

Show Answer 159.48.0.1

Show Answer 211.90.0.1

Show Answer 220.20.0.1

Show Answer 192.188.0.1

Show Answer 220.20.0.1

ch4-2. A group of N stations share a 56-kbps pure ALOHA channel. Each station outputs a 1000-bit frame on an average of once every 100 sec, even if the previous one has not yet been sent (e.g., the stations can buffer outgoing frames). What is the maximum value of N?

A:

Show Answer 1030

ch4-21. Consider building a CSMA/CD network running at 1 Gbps over a 1-km cable with no repeaters. The signal speed in the cable is 200,000 km/sec. What is the minimum frame size in bytes?

A:

Show Answer 1250

Q. A large number of consecutive IP address are available starting at 198.16.0.0. Suppose that four organizations, A, B, C, and D, request 4000, 2000, 4000, and 8000 addresses, respectively, and in that order. For each of these, give the first IP address assigned, the last IP address assigned, and the mask in w.x.y.z/s notation.

A. Fill your answer in the blank

Org#	First IP	Last IP	net/mask
A	<input type="text"/>	<input type="text"/>	<input type="text"/>
B	<input type="text"/>	<input type="text"/>	<input type="text"/>
C	<input type="text"/>	<input type="text"/>	<input type="text"/>
D	<input type="text"/>	<input type="text"/>	<input type="text"/>

Show Answer 198.16.0.0

Show Answer 198.16.15.255

Show Answer 198.16.0.0/20

Show Answer 198.16.16.0

Show Answer 198.16.23.255

Show Answer 198.16.16.0/21

Show Answer 198.16.32.0

Show Answer 198.16.47.255

Show Answer 198.16.32.0/20

Show Answer 198.16.64.0

Show Answer 198.16.95.255

Show Answer 198.16.64.0/19

Q. Convert the IP address whose hexadecimal representation is C22F1582 to dotted decimal notation.

Show Answer 194.47.21.130

Q. Consider building a CSMA/CD network running at 1 Gbps over a 1-km cable with no repeaters. The signal speed in the cable is 200,000 km/sec. What is the minimum frame size?

A.

bits

Show Answer 10000

Q. What is the baud rate of the standard 10-Mbps Ethernet?

A.

Mbaud

Show Answer 20

Q. Suppose that host A is connected to a router R1, R1 is connected to another router, R2, and R2 is connected to host B. Suppose that a TCP message that contains 900 bytes of data and 20 bytes of TCP header is passed to the IP code at host A for delivery to B. Show the Total length, MF, and Fragment offset fields of the IP header in each packet transmitted over the three links.

Assume that link A-R1 can support a maximum frame size of 1024 bytes including a 14-byte frame header, link R1-R2 can support a maximum frame size of 512 bytes, including an 8-byte frame header, and link R2-B can support a maximum frame size of 512 bytes including a 12-byte frame header.

A. Fill your answer in the blank

link Packet#

A->R1	1	
R1->R2	1	
	2	
R2->B	1	
	2	

Show Answer 940

Show Answer 0

Show Answer 0

Show Answer 500

Show Answer 1

Show Answer 0

Show Answer 460

Show Answer 0

Show Answer 60

Show Answer 500

Show Answer 1

Show Answer 0

Show Answer 460

Show Answer 0

Show Answer 60