Hometask #3

Quiz #1

1. In a LAN, which of the following terms best equates to the term VLAN?

A. Collision domain
B. Broadcast domain
D. Single switch
E. Trunk

2. Imagine a switch with three configured VLANs. How many IP subnets are required, assuming that all hosts in all VLANs want to use TCP/IP?

A. 0
B. 1
C. 2
D. 3
E. You can't tell from the information provided

3. Switch SW1 sends a frame to switch SW2 using 802.1Q trunking. Which of the answers describes how SW1 changes or adds to the Ethernet frame before forwarding the frame to SW2?

A. Inserts a 4-byte header and does change the MAC addresses
B. Inserts a 4-byte header and does not change the MAC adresses
C. Encapsulates the original frame behind an entirely-new Ethernet header
D. None of the other answers are correct

Quiz #2

1. Host A is a PC connected to switch SW1 and assigned to VLAN 1. Which of the following are typically assigned an IP adress in the same subnet as host A? (Select two answers)

A. The local router's WAN interface
B. The local router's LAN interface
C. All other hosts attached to the same switch
D. Other hosts attached to the same switch and also in VLAN 1

2. Which of the following are private IP networks? (Select two answers)

A. 172.31.0.0
B. 172.32.0.0
C. 192.168.255.0
D. 192.1.168.0
C. 11.0.0.0

3. Which of the following are public IP networks? (Select three answers)

A. 9.0.0.0
B. 172.30.0.0
C. 192.168.255.0
D. 192.1.168.0

E. 1.0.0.0

Quiz #3

1. Which of the following are not valid Class A network IDs? (Choose two answers)

A. 1.0.0.0
B. 130.0.0.0
C. 127.0.0.0
D. 9.0.0.0

2. Which of the following are not valid Class B network IDs?

A. 130.0.0.0
B. 191.255.0.0
C. 128.0.0.0
D. 150.255.0.0
E. All are valid Class B network IDs

3. Which of the following are true about IP adress 172.16.99.45's IP network? (Select two answers)

A. The network ID is 172.0.0.0
B. The network is a Class B network
C. The default mask for the network is 255.255.255.0
D. The number of host bits in the unsubnetted network is 16

Quiz #4

1. Which of the following answers lists the prefix (CIDR) format equivalent of 255.255.254.0?

A. /19
B. /20
C. /23
D. /24
E. /25

255	255	254	0
11111111	11111111	11111110	00000000
8	8	7	0

8+8+7+0 = 23

2. Which of the following answers lists the prefix (CIDR) format equivalent of 255.255.255.240?

A. /26
B. /28
C. /27
D. /30
E. /29

255	255	255	240
11111111	11111111	11111111	11110000
8	8	8	4

8+8+8+4 = 28

3. Which of the following answers lists the dotted-decimal notation (DDN) equivalent of /30?

A. 255.255.255.192
B. 255.255.255.252
C. 255.255.255.240
D. 255.255.254.0
E. 255.255.255.0

8+8+8+6 = 30

8	8	8	6
11111111	11111111	11111111	11111100
255	255	255	252

255.255.255.252

Quiz #5

1. Which of the following is the resident subnet ID for IP address 10.7.99.133/24?

A. 10.0.0.0
B. 10.7.0.0
C. 10.7.99.0
D. 10.7.99.128

/24 = 255.255.255.0
10.7.99.0

2. Which of the following is the resident subnet for IP address 192.168.44.97/30?

A. 192.168.44.0
B. 192.168.44.64
C. 192.168.44.96
D. 192.168.44.128

/30 = 255.255.255.252
.111111 00 – Mask
.011000 01 – Address
.011000 00 – Network = 96

192.168.44.96

3. Which of the following is the subnet broadcast address for the subnet in which IP address 172.31.77.201/27 resides?

A.172.31.201.255
B. 172.31.255.255
C. 172.31.77.223
D. 172.31.77.207

/27 = 255.255.255.?

27 = 8 + 8 + 8 +3

8	8	8	3
11111111	11111111	11111111	11100000
255	255	255	224

/27 = 255.255.255.224
.111 00000 – Mask
.110 01001 – 201
.110 00000 – Network = 192

Network is 172.31.77.192/27
Host min – 172.31.77.193
Host max – ?

110 000001
110 111110 = 222

Host max – 172.31.77.222
Broadcast – 172.31.77.223