1. A router interface has been assigned an IP address of 172.16.192.166 with a mask of 255.255.255.248. To which subnet does the IP address belong?
   172.16.192.168
   172.16.192.160
   172.16.192.128
   172.16.192.0
   172.16.192.176
   172.16.0.0
2. Which process do routers use to determine the subnet network address based upon a given IP address and subnet mask?
   binary adding
   hexadecimal anding
   binary division
   binary multiplication
   binary ANDing
3. Which three IP addresses are private? (Choose three.)
   172.168.33.1
   10.35.66.70
   192.168.99.5
   172.18.88.90
   192.33.55.89
   172.35.16.5
4. What is the primary reason for development of IPv6?
   security
   header format simplification
   expanded addressing capabilities
   addressing simplification
5. How many bits make up an IPv4 address?
   128
   64
   48
   32
6. What three facts are true about the network portion of an IPv4 address? (Choose three.)
   identifies an individual device
   is identical for all hosts in a broadcast domain
   is altered as packet is forwarded
   varies in length
   is used to forward packets
   uses flat addressing
7. Which statements are true regarding IP addressing? (Choose two.)
   NAT translates public addresses to private addresses destined for the Internet.
   Only one company is allowed to use a specific private network address space.
   Network 172.32.0.0 is part of the private address space.
   Private addresses are blocked from public Internet by router.
   IP address 127.0.0.1 can be used for a host to direct traffic to itself.

8.

```
--- 127.0.0.1 ping statistics ---
4 packets transmitted, 0 packets received, 100%
packet loss
```

Refer to the exhibit. Why would the response shown be displayed after issuing the command ping 127.0.0.1 on a PC?

The IP settings are not properly configured on the host.

Internet Protocol is not properly installed on the host.

There is a problem at the physical or data link layer.

The default gateway device is not operating.

A router on the path to the destination host has gone down.

9. Which of the following network devices are recommended to be assigned static IP addresses? (Choose three.)
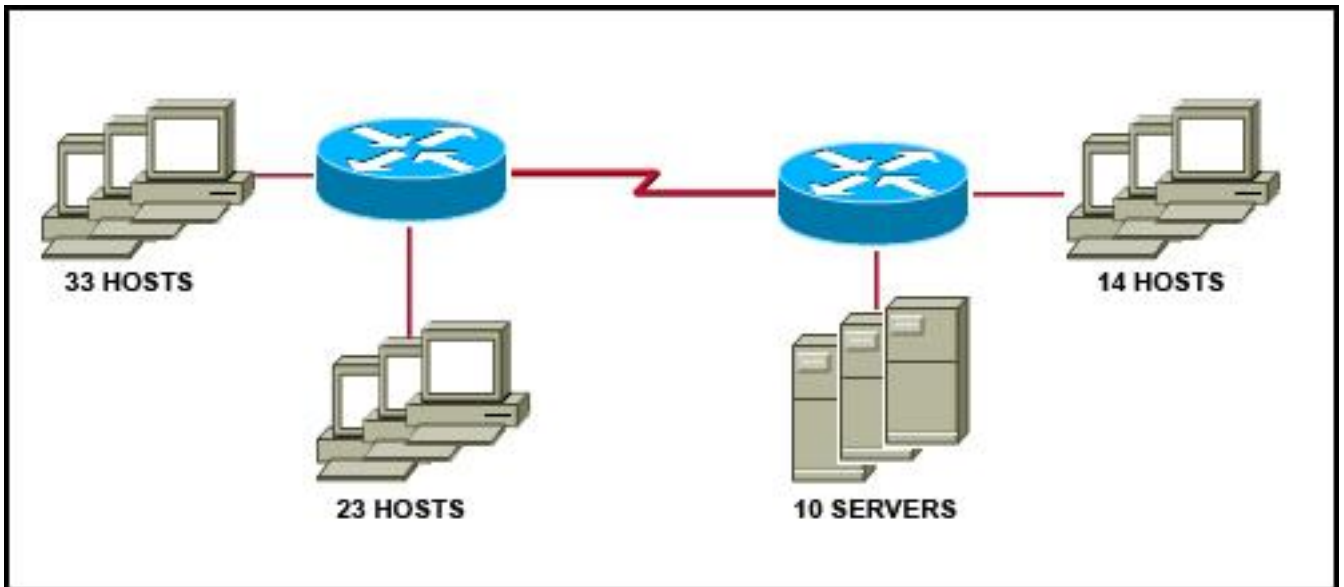
LAN workstations

servers

network printers

routers

remote workstations

laptops

10.

luih kejem iki ah.

Refer to the exhibit. A network administrator has to develop an IP addressing scheme that uses the 192.168.1.0 /24 address space. The network that contains the serial link has already been addressed out of a separate range. Each network will be allocated the same number of host addresses. Which network mask will be appropriate to address the remaining networks?

255.255.255.248

255.255.255.224
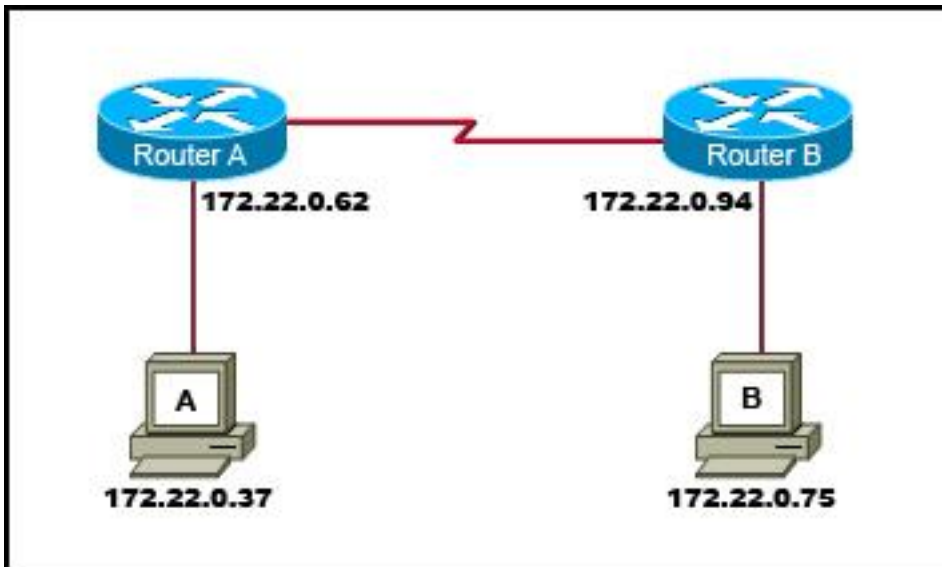
255.255.255.192

255.255.255.240

255.255.255.128

255.255.255.252

11. What is a group of hosts called that have identical bit patterns in the high order bits of their addresses?
    an internet
    a network
    an octet
    a radix

12.

Refer to the exhibit. Which network prefix will implement the IP addressing scheme for the LANs shown in the graphic?
    /24
    /16
    /20
    /27
    /25
    /28

13. Which IPv4 subnetted addresses represent valid host addresses? (Choose three.)
    172.16.4.207 /27
    172.16.4.193 /26
    172.16.4.155 /26
    172.16.4.159 /27
    172.16.4.95 /27
    172.16.4.127 /26

14. Given the IP address and subnet mask of 172.16.134.64 255.255.255.224, which of the following would describe this address?
    This is a useable host address.
    This is a broadcast address.
    This is a network address.
    This is not a valid address.

15.
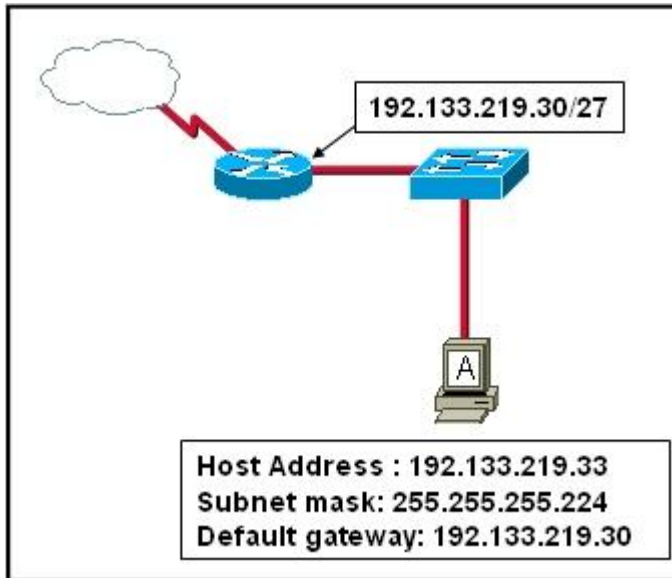
Refer to the exhibit. Host A is connected to the LAN, but it cannot get access to any resources on the Internet. The configuration of the host is shown in the exhibit. What could be the cause of the problem?

The host subnet mask is incorrect.

The default gateway is a network address.

The default gateway is a broadcast address.

The default gateway is on a different subnet from the host.

16. What two things will happen if a router receives an ICMP packet which has a TTL value of 1 and the destination host is several hops away? (Choose two.)

The router will discard the packet.

The router will send a time exceeded message to the source host.

The router will decrement the TTL value and forward the packet to the next router on the path to the destination host.

The router will increment the TTL value and forward the packet to the next router on the path to the destination host.

The router will send an ICMP Redirect Message to the source host.

17. What subnet mask would a network administrator assign to a network address of 172.30.1.0 if it were possible to have up to 254 hosts?
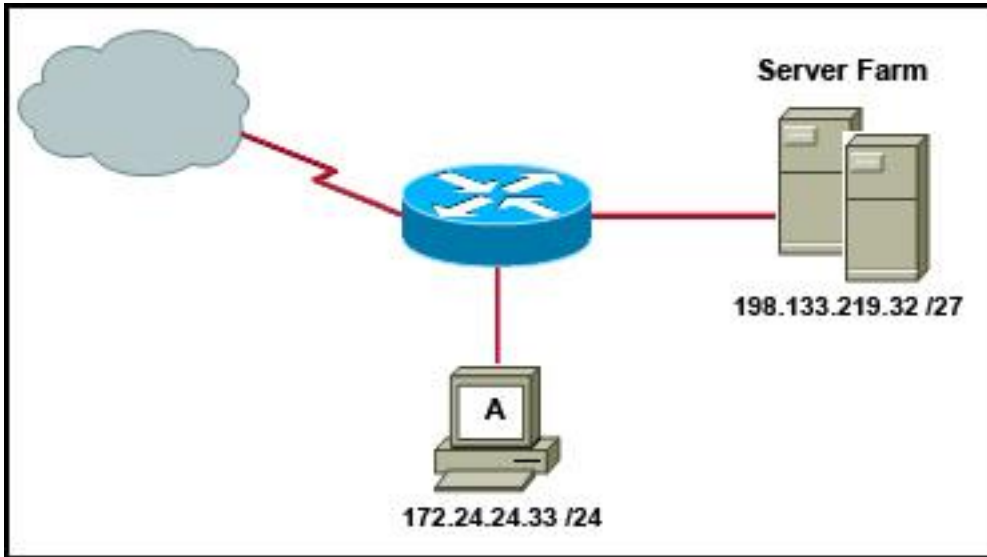
255.255.0.0

255.255.255.0

255.255.254.0

255.255.248.0

18.

Refer to the exhibit. A network administrator discovers that host A is having trouble with Internet connectivity, but the server farm has full connectivity. In addition, host A has full connectivity to the server farm. What is a possible cause of this problem?

The router has an incorrect gateway.

Host A has an overlapping network address.

Host A has an incorrect default gateway configured.

Host A has an incorrect subnet mask.

NAT is required for the host A network.

19. What is the network address of the host 172.25.67.99 /23 in binary?

10101100.00011001.01000011.00000000

10101100.00011001.01000011.11111111

10101100.00011001.01000010.00000000

10101100.00011001.01000010.01100011

10101100.00010001.01000011.01100010

10101100.00011001.00000000.00000000

20.
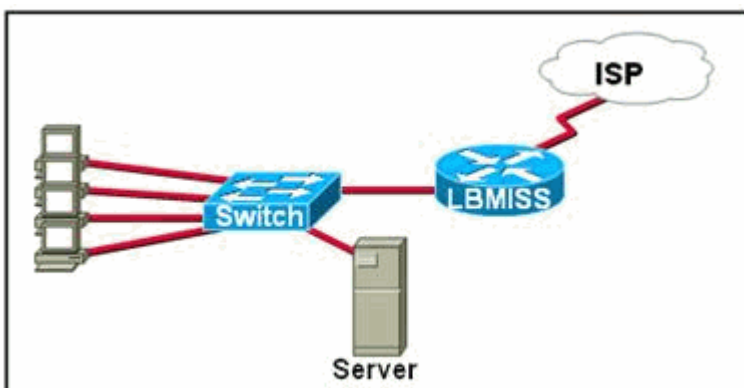
Refer to the exhibit. The network administrator has assigned the internetwork of LBMISS an address range of 192.168.10.0. This address range has been subnetted using a /29 mask. In order to accommodate a new building, the technician has decided to use the fifth subnet for configuring the new network (subnet zero is the first subnet). By company policies, the router interface is always assigned the first usable host address and the workgroup server is given the last usable host address. Which configuration should be entered into the workgroup server's properties to allow connectivity to the network?

IP address: 192.168.10.38 subnet mask: 255.255.255.240 default gateway: 192.168.10.39

IP address: 192.168.10.38 subnet mask: 255.255.255.240 default gateway: 192.168.10.33

IP address: 192.168.10.38 subnet mask: 255.255.255.248 default gateway: 192.168.10.33

IP address: 192.168.10.39 subnet mask: 255.255.255.248 default gateway: 192.168.10.31
IP address: 192.168.10.254 subnet mask: 255.255.255.0 default gateway: 192.168.10.1