

## Exam Report: 7.3.6 Practice Questions

Date: 10/16/2019 1:25:42 am  
Time Spent: 6:43

Candidate: Garsteck, Matthew  
Login: mGarsteck

## Overall Performance

Your Score: 80%



Passing Score: 80%

View results by: ☐ Objective Analysis ☒ Individual Responses

## Individual Responses

### ▼ Question 1: Correct

Which of the following techniques allows incoming traffic addressed to a specific port to move through a NAT router and be forwarded to a specific host?

- ☐ EIGRP
- ☐ Spanning tree protocol
- ☐ Port address translation

➡ ☒ Port forwarding

### Explanation

Port forwarding is a type of static NAT implementation where a specific port is mapped to a private IP address. Incoming traffic that is addressed to a specific port is then forwarded to the specified host.

Port address translation (PAT) is used to keep track of which request goes to which host on the internal network. EIGRP is a routing protocol used to exchange information about known routes with other routers. The spanning tree protocol is used to eliminate switching loops within a network.

### References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm \*NP15\_NETWORK\_ADDRESS\_TRANSLATION\_01]

### ▼ Question 2: Correct

Your computer has an IP address of 161.13.5.15. Your computer is on a:

- ☐ Private network
- ☐ Multi-cast network

➡ ☒ Public network

- ☐ Class C network

### Explanation

Most IP addresses are public IP addresses. However, certain ranges have been reserved for private networks. These are:

- 10.0.0.0 - 10.255.255.255
- 172.16.0.0 - 172.31.255.255
- 192.168.0.0 - 192.168.255.255

Because your computer's IP address does not fall into these ranges, it is a public IP address.

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm NP05\_2-8 #23]

### ▼ Question 3: Incorrect

Which of the following IP addresses is a valid IP address for a host on a public network?

☐ 172.16.254.12

☐ 192.168.16.45

☒ ~~10.3.125.2~~

➡ ☐ 142.15.6.1

## Explanation

A public network is a network that does not limit traffic to members of a corporation or other group. The internet is an example of a public network. Certain sets of IP addresses are reserved for private networks only and cannot be used on public networks. They are:

- 10.0.0.0 to 10.255.255.255
- 172.16.0.0 to 172.31.255.255
- 192.168.0.0 to 192.168.255.255

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm NP05\_2-8 #15]

### ▼ Question 4: Correct

Which of the following is not one of the ranges of IP addresses defined in RFC 1918 that are commonly used behind a NAT server?

☐ 172.16.0.1 - 172.31.255.254

➡ ☒ 169.254.0.1 - 169.254.255.254

☐ 192.168.0.1 - 192.168.255.254

☐ 10.0.0.1 - 10.255.255.254

## Explanation

169.254.0.1 - 169.254.255.254 is the range of IP addresses assigned to Windows DHCP clients if a DHCP server does not assign the client an IP address. This range is known as the Automatic Private IP Addressing (APIPA) range.

The other three ranges listed in this question are defined as the private IP addresses from RFC 1918, which are commonly used behind a NAT server.

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm NP05\_2-8 #7]

### ▼ Question 5: Correct

Which of the following associates a port number with a host on a private network?

☐ CIDR

☐ VLSM

➡ ☒ PAT

☐ NAT

## Explanation

Port address translation (PAT) associates a port number with the translated address. Use PAT to allow multiple private hosts to share a single public address. Each private host is associated with a unique port number.

Technically speaking, NAT translates one address to another. With only NAT, you would have to have a public address for each private host. NAT would associate a single public address with a single private address. Because virtually all NAT routers perform port address translation, most routers that are configured with NAT are really performing PAT. When you use a NAT router, you normally use PAT, not just NAT. (NAT is typically used synonymously with PAT.)

Classless inter-domain routing (CIDR) allows non-default subnet masks (variable-length subnet masks, or VLSMs).

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm NP09\_1-4 #13]

### ▼ Question 6: Correct

You have a small network at home that is connected to the internet. On your home network, you have a server with the IP address of 192.168.55.199/16. You have a single public address that is shared by all hosts on your private network.

You want to configure the server as a web server and allow internet hosts to contact the server to browse a personal website.

What should you use to allow access?

☐ Dynamic NAT

☐ DNS CNAME record

➡ ☒ Static NAT

☐ DNS A record

☐ Multicast

## Explanation

Static NAT maps an internal IP address to a static port assignment. Static NAT is typically used to take a server on the private network (such as a web server) and make it available on the internet. External hosts contact the internal server using the public IP address and the static port. Using a static mapping allows external hosts to contact internal hosts.

Dynamic NAT automatically maps internal IP addresses with a dynamic port assignment. On the NAT device, the internal device is identified by the public IP address and the dynamic port number. Dynamic NAT allows internal (private) hosts to contact external (public) hosts, but not vice versa. External hosts cannot initiate communications with internal hosts.

DNS records associate a host name with an IP address. Multicast can forward a single data stream to all computers that are members of the same multicast group.

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm NP09\_1-4 #8]

### ▼ Question 7: Incorrect

You are the network administrator for a small company that implements NAT to access the internet. You recently acquired five servers that must be accessible from outside your network. Your ISP has provided you with five additional registered IP addresses to support these new servers, but you don't want the public to access these servers directly. You want to place these

servers behind your firewall on the inside network, yet still allow them to be accessible to the public from the outside.

Which method of NAT translation should you implement for these five servers?

- ☐ Restricted
- ➡ ☐ Static
- ☐ Overloading
- ☒ Dynamic

## Explanation

Static translation consistently maps an unregistered IP address to the same registered IP address on a one-to-one basis. Static NAT is particularly useful when a device needs to be assigned the same address so it can be accessed from outside the network, such as web servers and other similar devices.

Dynamic translation would not work for these servers because it maps an unregistered host IP address to any available IP address configured in a pool of one or more registered IP addresses. Accessing a server assigned one of these addresses would be nearly impossible because the addresses are still shared by multiple hosts.

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm SSCP-3 NEW [408]]

### ▼ Question 8: Correct

You want to connect your small company network to the internet. Your ISP provides you with a single IP address that is to be shared between all hosts on your private network. You do not want external hosts to be able to initiate connections to internal hosts. What type of network address translation (NAT) should you implement?

- ☐ Static
- ☐ Restricted
- ☐ Shared
- ➡ ☒ Dynamic

## Explanation

Use dynamic NAT to share public addresses with multiple private hosts. Dynamic NAT allows private hosts to access the internet, but does not allow internet hosts to initiate contact with private hosts.

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm SSCP-3 NEW [416]]

### ▼ Question 9: Correct

You have a computer that is connected to the internet through a NAT router. You want to use a private addressing scheme for your computer. Which of the following IP addresses could you assign to the computer? (Select all that apply.)

- ➡ ☒ 172.18.188.67
- ☐ 32.188.99.10
- ☐ 127.0.0.1
- ➡ ☒ 192.168.12.253

☐ 240.12.188.1☒ 10.0.12.15☐ 224.15.166.12

## Explanation

Of the addresses listed here, the following are in the private IP address ranges:

- 10.0.12.15 (private range = 10.0.0.0 to 10.255.255.255)
- 172.18.188.67 (private range = 172.16.0.0 to 172.31.255.255)
- 192.168.12.253 (private range = 192.168.0.0 to 192.168.255.255)

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm NP05\_2-8 #39]

### ▼ Question 10: Correct

You have a small network at home that is connected to the internet. On your home network, you have a server with the IP address of 192.168.55.199/16. All computers on your home network can connect to the internet.

From your work office, you try to access your home computer using its IP address, but are unable to communicate with the server. You are able to connect to other hosts on the internet.

Why can't you access the server?

- ☒ Private addresses are not accessible through the internet.
- ☐ The server isn't using the default subnet mask.
- ☐ The server has been assigned a multicast address.
- ☐ The server must have an entry on a DNS server that exists on the internet.

## Explanation

The server has been assigned a private IP address. Private addresses are not accessible from the internet. Instead, a NAT router translates the private address into a public address, and the public address is used to gain access to the private host.

## References

LabSim for Network Pro, Section 7.3.

[netpro18v5\_all\_questions\_en.exm NP09\_1-4 #7]