ENCOR v1.1 (350-401) Video Training Series
Module 3 – Lesson 4 Quiz

Questions

1. In a Network Address Translation (NAT) configuration, a client inside of a network has its private IP address of 10.1.1.12 translated into a publicly routable IP address of 192.0.2.10. What is the 192.0.2.10 IP address referred to in this scenario?

   A. Inside Local Address
   B. Inside Global Address
   C. Outside Local Address
   D. Outside Global Address

2. In a Network Address Translation (NAT) configuration, what command is given (and in what configuration mode is it given) to specify that an interface is on the inside of a network?

   A. Router(config)# ip nat inside
   B. Router(config-if)# ip nat inside
   C. Router(config-nat)# nat [interface-id] inside
   D. Router(config-router)# nat [interface-id] inside

3. When configuring Dynamic NAT, what is the “pool” parameter used to specify?

   A. The range of ephemeral port numbers into which outgoing connections are dynamically assigned
   B. The range of Inside Local addresses to be mapped to Inside Global addresses
   C. The range of Inside Global addresses into which Inside Local addresses are mapped
   D. The range of Outside Global addresses into which Inside Local addresses are mapped

4. What option is added to the end of an “ip nat” command to enable Port Address Translation (PAT)?

   A. single
   B. ports
   C. static
   D. overload

5. What port number is used by Network Time Protocol (NTP)?

A. TCP port 443
B. UDP port 69
C. UDP port 123
D. TCP port 25

6. What is the default Priority value used by HSRP?

A. 3
B. 10
C. 100
D. 255

7. Which of the following is true of VRRP but not true of HSRP?

A. VRRP has a default Hello time of 3 seconds.
B. VRRP has Preemption disabled by default.
C. VRRP is Cisco-proprietary.
D. VRRP can used an interface's IP address as a Virtual IP address.

8. An IPv6 multicast address always begins with which Hexadecimal digits?

A. FF
B. FE80
C. F001
D. EE

9. What command is used to require a router to use NTP authentication?

A. ntp secure
B. ntp authentication
C. ntp authenticate
D. ntp peer-authentication

10. Which of the following is true of an End-to-End Transparent Clock in a topology using Precision Time Protocol (PTP)?

A. It sends pDelay_Request messages in response to Sync messages.
B. It forwards PTP packets without calculating a Residence Time.
C. It has the ability to connect to multiple VLANs in multiple PTP domains.
D. It forwards received Sync messages.

Questions and Answers

1. In a Network Address Translation (NAT) configuration, a client inside of a network has its private IP address of 10.1.1.12 translated into a publicly routable IP address of 192.0.2.10. What is the 192.0.2.10 IP address referred to in this scenario?

   A. Inside Local Address
   B. Inside Global Address
   C. Outside Local Address
   D. Outside Global Address

Answer: B
Explanation: In this scenario, the 192.0.2.10 IP address is referred to an Inside Global Address, because the IP address is Globally routable and refers to a device on the Inside of the network. Also, in this scenario, the 10.1.1.12 IP address is referred to an Inside Local Address, because it's a Locally routable address and refers to a device on the Inside of the network.

Video Reference: Review of Network Address Translation (NAT)

2. In a Network Address Translation (NAT) configuration, what command is given (and in what configuration mode is it given) to specify that an interface is on the inside of a network?

   A. Router(config)# ip nat inside
   B. Router(config-if)# ip nat inside
   C. Router(config-nat)# nat [interface-id] inside
   D. Router(config-router)# nat [interface-id] inside

Answer: B
Explanation: As part of a NAT configuration, an interface can be identified as an Inside interface using the "ip nat inside" command. That command needs to be issued in interface configuration mode for the interface being identified as an inside interface.

Video Reference: Static NAT Configuration

3. When configuring Dynamic NAT, what is the "pool" parameter used to specify?

   A. The range of ephemeral port numbers into which outgoing connections are dynamically assigned
   B. The range of Inside Local addresses to be mapped to Inside Global addresses
   C. The range of Inside Global addresses into which Inside Local addresses are mapped
   D. The range of Outside Global addresses into which Inside Local addresses are mapped

Answer: C

Explanation: When configuring Dynamic NAT, an Access Control List (ACL) is typically used to identify the Inside Local addresses to be mapped to Inside Global addresses. However, a “pool” parameter is used to define a range of Inside Global addresses into which the Inside Local addresses are mapped.

Video Reference: Dynamic NAT Configuration

4. What option is added to the end of an “ip nat” command to enable Port Address Translation (PAT)?

   A. single
   B. ports
   C. static
   D. overload

Answer: D
Explanation: The “overload” option is specified at the end of an “ip nat” command to enable PAT. In fact, PAT is commonly referred to as “NAT Overloading.”

Video Reference: Port Address Translation (PAT) Configuration

5. What port number is used by Network Time Protocol (NTP)?

   A. TCP port 443
   B. UDP port 69
   C. UDP port 123
   D. TCP port 25

Answer: C
Explanation: TCP port 443 is used by HTTPS. UDP port 69 is used by TFTP. UDP port 123 is used by NTP, and TCP port 25 is used by SMTP.

Video Reference: Review of Network Time Protocol (NTP)

6. What is the default Priority value used by HSRP?

   A. 3
   B. 10
   C. 100
   D. 255

Answer: C
Explanation: HSRP uses a Priority value to elect an Active router. Higher Priority values are preferred. Therefore, an HSRP router can be influenced to become the Active router for an

HSRP group by giving it a higher Priority value compared to any other member of the HSRP group. By default, HSRP has a Priority value is 100.

Video Reference: HSRP Configuration

7. Which of the following is true of VRRP but not true of HSRP?

   A. VRRP has a default Hello time of 3 seconds.
   B. VRRP has Preemption disabled by default.
   C. VRRP is Cisco-proprietary.
   D. VRRP can used an interface's IP address as a Virtual IP address.

Answer: D
Explanation: HSRP has a default Hello time of 3 seconds. However, instead of a Hello time, VRRP uses a Master Advertisement Interval, which defaults to 1 second. Also, HSRP has Preemption disabled by default, while VRRP has Preemption enabled by default. While HSRP is Cisco-proprietary, VRRP is an industry standard First Hop Redundancy Protocol (FHRP). Finally, while HSRP cannot use a Virtual IP address that is already assigned to an interface, VRRP can.

Video Reference: VRRP Configuration

8. An IPv6 multicast address always begins with which Hexadecimal digits?

   A. FF
   B. FE80
   C. F001
   D. EE

Answer: A
Explanation: The first 8 Binary bits in an IPv6 multicast address are all 1s, meaning that the first 2 Hexadecimal digits in an IPv6 address are FF. Following those first 8 bits, are 4 Flag bits, 4 Scope bits, and 112 bits identifying the Group ID.

Video Reference: Multicast Operation

9. What command is used to require a router to use NTP authentication?

   A. ntp secure
   B. ntp authentication
   C. ntp authenticate
   D. ntp peer-authentication

Answer: C

Explanation: The “ntp authenticate” command is used to require a router to use NTP authentication. The “ntp authentication-key [key_number] md5 [key_string]” command is used to define an authentication key, and the “ntp trusted-key [key_number]” command is used to identify which key is trusted.

Video Reference: NTP Security

10. Which of the following is true of an End-to-End Transparent Clock in a topology using Precision Time Protocol (PTP)?

    A. It sends pDelay_Request messages in response to Sync messages.
    B. It forwards PTP packets without calculating a Residence Time.
    C. It has the ability to connect to multiple VLANs in multiple PTP domains.
    D. It forwards received Sync messages.

Answer: D
Explanation: Transparent Clocks used in PTP configurations can connect to a single VLAN in a single PTP domain. They also measure the time it takes a PTP packet to move from a switch’s ingress port to a switch’s egress port. That delay is called the Residence Time.

There are two types of Transparent Clocks: (1) End-to-End and (2) Peer-to-Peer. While a Peer-to-Peer Transparent clock responds to Sync messages with pDelay_Request messages, to calculate the path delay for each clock hop, an End-to-End Transparent Clock transparently forwards the original Sync message from a Grandmaster clock towards its destination.

Video Reference: Understanding Precision Time Protocol (PTP)