

# [Ccna practice exam 5](https://assignbuster.com/ccna-practice-exam-5/)

You have just connected a Windows workstation to the network. The workstation can communicate with all devices on the same subnet, but can't communicate with other devices on other subnets. You use the ipconfig command on the workstation and see the following: C: ipconfig Windows IP Configuration Ethernet adapter Local Area Connection: IP Address . . . . . . . . . . : 192. 168. 1. 100 Subnet Mask. . . . . . . . . . : 255. 255. 255. 0 Default Gateway. . . . . . . . : 192. 168. 1. 1 No other devices seem to have a problem. What is the most likely cause of the problem? The wrong default gateway address has been configured. You have a small network as shown in the Exhibit. You are troubleshooting connectivity issues at Wrk1. From Wrk1 you are able to ping hosts Wrk2 and Wrk3. A ping to any host in the main office fails. From Wrk2, you can ping any host in the branch office or the main office. What is the most likely cause of the problem? Incorrect default gateway configuration on the workstation. You have a TCP/IP network with 50 hosts. There have been inconsistent communication problems between hosts. You run a protocol analyzer and discover that two hosts have the same IP address assigned. Which protocol can you implement on your network to help prevent problems such as this? DHCPYou have a workstation configured with DNS server addresses as follows: • Primary DNS server = 192. 168. 1. 1 • Alternate DNS server = 192. 168. 1. 155, 192. 168. 1. 222   
In your browser, you type www. widgetsinc. com. The workstation queries the primary DNS server for the corresponding IP address, and the server responds with an unknown host message. What will the workstation do next? Nothing. You would like to see what host names have been cached on your router. Which command displays the cached list of host names? show hostsYou are working at the console of a new router. You want to check the configuration of a neighboring router called Sales5. You type telnet Sales5 at the router prompt and receive the following message: Translating " Sales5"... domain server (255. 255. 255. 255) % Unknown command or computer name, or unable to find computer address What should you do? Configure an address of a DNS server for the router to contactSrv2 is a host connected to the Fa0/1 interface of RouterA. Its MAC address is 02c7. f800. 0422. Srv2 is configured to use DHCP to request an IP address. Which of the following addresses will most likely be assigned to Srv2 when it boots. It will not be assigned an IP addressYou have a small network with a single subnet connected to the Internet. You have configured a DHCP server to deliver IP address, default gateway, and DNS server addresses to hosts. You are using a Windows laptop connected to the LAN through an Ethernet connection. You would like the laptop to use a different DNS server address than is used on the rest of the LAN. It should have an IP address on the subnet, and use the same default gateway address. What will you need to configure on the laptop? Manually configure the default DNS server addressWhich of the following statements about the dynamic host configuration protocol (DHCP) are true? (Select two.)

A DHCP server assigns addresses to requesting hosts.

It can deliver other configuration information in addition to IP addresses

Listed below are several places that a workstation checks to resolve DNS host names. • A. Primary DNS server • B. Secondary DNS servers • C. HOSTS file • D. Local DNS cache   
In a browser, you type the name of a website. In which order will these locations be checked during the name resolution process? D, C, A, BYou have a small network as shown in the Exhibit. You configure DHCP on Router1 to provide IP addresses to all hosts connected to SwitchA. Following the configuration, you verify that Wrk1 has received an IP address from the DHCP service. Wrk1 can ping every host on the subnet, but cannot communicate with any hosts connected to Switch B or on the Internet. What should you do? Configure the DHCP server to deliver the default gateway address along with the IP address. For each operation on the right, match the appropriate command from the list on the left. Configure DNS server addresses for the router to use for resolving host names   
ip nameserverCreate static entries for hosts, associating a host name with an IP address   
ip host

Prevent the router from using DNS to resolve host names   
no ip domainlookup

Set the DNS name used by the router   
hostname

Srv2 is a host connected to the Fa0/1 interface of RouterA. Its MAC address is 02c7. f800. 0422. Srv2 is configured to use DHCP to request an IP address. When Srv2 boots, it is configured with an IP address of 169. 254. 0. 55/16. It needs to be assigned the address of 192. 168. 12. 166. What should you do to correct the problem? Change the IP address assigned to Fa0/1. You have a Cisco router connected to a local ISP. The ISP dictates that the router use DHCP to receive its IP address and other configuration information. Which command should you use? ip address dhcpYou are setting up a new branch office for your company. You would like to implement solutions to provide the following services: • Hosts should be able to contact other hosts using names such as server1. westsim. com. • IP address assignment should be centrally managed.   
Which services should you implement on your network to meet the requirements? (Select two.)DHCP   
DNSYou have a workstation configured with DNS server addresses as follows: • Primary DNS server = 192. 168. 1. 1 • Alternate DNS server = 192. 168. 1. 155   
In your browser, you type www. widgetsinc. com. The workstation queries the primary DNS server for the corresponding IP address, but the server doesn't respond. What will the workstation do next? Query server 192. 168. 1. 155You have a small network connected to the Internet as shown in the Exhibit. Router1 will provide NAT services to all hosts on the private network, and DHCP services to hosts connected to SubnetA. Srv1 is located on SubnetA. You want to make sure that this server is assigned the same IP address every time it boots, but you still want to centrally manage the address that it uses. What should you do? Configure a DHCP binding for Srv1. Srv2 is a host connected to the Fa0/1 interface of RouterA. When it boots, it does not receive an IP address from the DHCP service. What should you do? Add a DHCP pool for network 192. 168. 12. 0/24. Srv2 is a host connected to the Fa0/0 interface of RouterA. When it boots, it is assigned the IP address of 192. 168. 11. 166. However, it can only communicate with hosts on the same subnet. What should you do to correct the problem? Add a defaultrouter statement to dhcp pool 2. You have three hosts on network 192. 168. 10. 0/24 as shown in the Exhibit. If interface Fa0/0 on RouterB has the ip helperaddress 172. 17. 10. 20 configuration command in its running configuration, which of the following statements are true? (Select two.)

RouterB will forward broadcast packets sent to the following ports: Time, DNS, BOOTP, and TFTP.

The hosts may receive their IP address information through DHCP.

You have a workstation configured with DNS server addresses as follows: • Primary DNS server = 192. 168. 1. 1 • Alternate DNS server = 192. 168. 1. 155   
While browsing the Internet, you go to www. cisco. com. A few minutes later, you type ping www. cisco. com into a command prompt. How will the workstation get the IP address for www. cisco. com? Out of its local DNS cacheYou have a DHCP server on your network. Which of the following is the correct order of DHCP messages exchanged between a client and server when the client obtains an IP address? DHCPDISCOVER, DHCPOFFER, DHCPREQUEST, DHCPACKYou want to configure DHCP on your Cisco router to provide automatic IP address assignment to a single subnet. You will use 192. 168. 12. 0/27 for the subnet address. The router interface has been configured with an IP address of 192. 168. 12. 1. Additionally, you want to make sure that a specific server, called SrvFS, always gets the last IP address on the subnet as its IP address. How should you configure DHCP on the router? (Select two.)

Create an address pool with start address of 192. 168. 12. 2 and end address of 192. 168. 12. 30.

Create a DHCP binding for address 192. 168. 12. 30.

Srv2 is a host connected to the Fa0/1 interface of RouterA. Its MAC address is 02c7. f800. 0422. Srv2 is configured to use DHCP to request an IP address. Which of the following addresses could Srv2 receive when it boots? 192. 168. 12. 166What will you need to configure on the laptop? Manually configure the IP address, mask, default gateway, and DNS server addresses. You have a small network as shown in the Exhibit. With the partial configuration shown below, which of the following statements are true? (Select two.)

If HostA and HostB are the only hosts on the subnet to receive their IP address, HostC will receive 172. 18. 2. 102 as an IP address if requested

HostD will have 172. 18. 1. 132 as a DNS server configured through DHCP.

Which of the following benefits are offered to an organization using network address translation (NAT)? NAT provides a measure of network security. You are the network administrator for a mediumsized company that owns a Class C IP address block. You do not have enough registered IP addresses for the 1000 hosts in your network; however, you've determined that no more than 20% of your hosts use the Internet. And the bandwidth you've budgeted cannot support more than this number anyway. So you decide to implement NAT and allocate 200 of your registered IP addresses to support external translation. Which method of NAT translation should you implement? DynamicYou have a small network connected to the Internet as shown in the Exhibit. Both Srv1 and Srv2 need to be contacted by Internet hosts. Which of the following tasks are required parts of the solution? (Select two.)

Configure a static NAT mapping for Srv1.

Define Fa0/0 as an inside NAT interface.

Which of the following is not a benefit of NAT? Improving the throughput rate of trafficYou are the network administrator for a small company that implements NAT to access the Internet. However, you recently acquired 5 servers that must be accessible from outside your network. Your ISP has provided you with 5 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 5 servers? StaticYou have a small network as shown in the Exhibit. Router2 is connected to the Internet through a fiber optic FastEthernet connection and is to be configured with NAT to provide Internet connectivity to your private network. What type of address would you assign to the Fa0/1 interface on Router2? Outside globalYou are designing a new network that will support 6000 computers. You only have 8 registered IP addresses that can be allocated to the employees for external network communication so you decide to implement NAT and share the addresses. You want all of these computers to be able to access the Internet at the same time if necessary. Which method of NAT translation should you implement? OverloadingYou have a small network as shown in the Exhibit. Router2 is connected to the Internet through a fiber optic FastEthernet connection and is to be configured with NAT to provide Internet connectivity to your private network. What type of address would you assign to host Wrk1 on your private network? Inside localYou have a small network connected to the Internet as shown in the Exhibit. Which of the following statements is true? (Select two.)The router must be configured for NAT for Srv1 to communicate on the Internet.   
Internet hosts can reach Srv2 without the need for NAT being configured. You have a small business network with a single subnet connected to the Internet through a Cisco router (RouterA). IP addresses have been assigned as shown in the Exhibit. A browser session on the workstation tries to connect to the www. westsim. com web server using 16. 177. 85. 116 and port 80. What IP address and port number will the Web server use as the destination address when responding to the workstation's request? IP address 199. 67. 111. 89 and a dynamic port assigned by RouterAYou want to configure static NAT so that packets from host 192. 168. 2. 100 will always be assigned the registered IP address 24. 1. 2. 11 as shown in the Exhibit. Match the missing lines with the required commands. atic NAT so that packets from host 192. 168. 2. 100 will always be assigned the registered IP address 24. 1. 2. 11 as shown in the Exhibit. Match the missing lines with the required commands.   
ip nat inside source static 192. 168. 2. 100 24. 1. 2. 11   
Router(config)# interface ethernet 0   
ip nat inside   
Router(configif)# interface serial 0   
ip nat outsideRouter(config)#   
ip nat inside source static 192. 168. 2. 100 24. 1. 2. 11   
Router(config)# interface ethernet 0 Router(configif)#   
ip nat inside   
Router(configif)# interface serial 0 Router(configif)#   
ip nat outside

You have a business network connected to the Internet as shown in the Exhibit. You have configured NAT on RouterC. Which of the following addressing schemes could you use on each subnet on the private network? Subnet1 = 192. 168. 1. 0/24 Subnet2 = 10. 3. 0. 0/16 Subnet3 = 172. 16. 1. 0/16You want to configure NAT so that packets from all hosts on network 192. 168. 2. 0 will share the registered IP address 24. 1. 2. 8 as shown in the Exhibit. You have already identified the inside and outside NAT interfaces on the router. Which of the following command options will translate all inside host addresses to the single registered IP address? accesslist 1 permit 192. 168. 2. 0 0. 0. 0. 255 ip nat inside source list 1 interface serial 0 overloadYou have an office network connected to the Internet as shown in the Exhibit. The network has three subnets, all with client computers. The Web1 server on Subnet1 hosts a small website used for traveling employees. Employees must be able to contact the web server from the Internet. All other hosts on the private network need to have full Internet connectivity for browsing the web and sending email. On which routers should you configure NAT? RouterCFollowing the configuration, you find that no hosts on Fa0/0 or Fa0/1 can connect to the Internet. What should you do so that hosts can connect to the Internet? Create an access list 7 that permits networks 192. 168. 11. 0/24 and 192. 168. 12. 0/24. You are the network administrator for a company that has a small block of registered IP addresses ranging from 24. 1. 2. 32 to 24. 1. 2. 47. You want to assign these addresses to a dynamic pool in NAT. Which command should you use? ip nat pool net1 24. 1. 2. 32 24. 1. 2. 47Which of the following statements are true regarding NTP when implemented on Cisco devices? (Select two.)

When NTP is enabled, NTP packets are received on all interfaces.

NTP runs over UDP port 123 on an IP network.

You check the time on a router and find that it is out of sync with the time on the other routers and switches in your network. To fix this issue, you decide to configure NTP on the router to get time from an internal authoritative (master) NTP server with an IP address of 172. 17. 8. 254. Which command should you use? ntp server 172. 17. 8. 254You check the time on a router and find that it is off by several minutes. To fix this issue, you configure NTP on the router to get time from a Stratum 2 time provider on the Internet. However, the time difference is large and it is taking some time for NTP to synchronize the time on the local router. To speed synchronization, you use NTP commands to immediately synchronize the time on the router with the time on the time provider. Which NTP term best describes this process? SlamCurrently, all of the routers in your network are configured to use NTP to synchronize time with a public Stratum 2 time provider on the Internet. To reduce redundant network traffic, you decide to configure one internal router as an authoritative NTP time provider with a stratum value of 5 and then configure all other routers to synchronize time with it. This router has an IP address of 172. 17. 8. 254 assigned. Which commands should you use? (Select two. Each response is a part of the complete solution.)

ntp server 172. 17. 8. 254 on all routers except the time provider

ntp master 5 on the NTP time provider router

You check the time on a router and find that it is off by about 10 minutes. To fix this issue, you configure NTP on the router to get time from a Stratum 2 time provider on the Internet. It is taking some time for NTP to synchronize the time on the local router. After about 15 minutes, the time finally synchronizes. Which NTP term best describes this process? SlewYou need to verify that time is synchronized on a router. Which commands could you use to do this? (Select two. Each response is a complete solution.)

show ntp status

show ntp associations

You check the time on a router and find that it is behind by several minutes. To fix this issue, you decide to configure NTP on the router to get time from a Stratum 2 time provider on the Internet with a hostname of 0. pool. ntp. org. Which command should you use? ntp server 0. pool. ntp. orgWhich of the following protocols provide gateway redundancy? (Select all that apply.)

HSRP

VRRP

You have two VLANs and two Cisco 1841 routers as shown in the exhibit. How can you configure HSRP to share the load from the two VLANs? (Select two.)

Configure RouterB to serve as the active router for VLAN 4 and the backup router for VLAN 2.

Configure RouterA to serve as the active router for VLAN 2 and the backup router for VLAN 4.

Which of the following best describes the various HSRP group roles? (Select two.)

An active router forwards traffic destined to the virtual IP address.

A standby router will become the active router should the existing active router fail.

How does standby preemption affect the router configured with the highest priority in the HSRP group? (Select two.)

If the active router fails, but then regains service, it becomes the active router again if preemption is enabled.

If the active router fails, but then regains service, it does not become the active router again when preemption is not enabled.

A router serving as the AVG in a GLBP group has which of the following responsibilities? (Select two.)

The AVG is responsible for answering Address Resolution Protocol (ARP) requests for the virtual IP address.

The AVG assigns a virtual MAC address to each router of the GLBP group

Which of the following is true when tracking an interface configured within a HSRP group? (Select two.)The HSRP group priority of the active router is decreased by 10 by default.   
If the interface goes down, the priority of the HSRP group is reduced to allow the HSRP standby router to become the active router. You have two routers that should be configured for gateway redundancy. The following commands are entered for each router:   
A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#standby 2 priority 150 A(configif)#standby 2 ip 172. 16. 0. 1B(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 3 B(configif)#standby 2 priority 150

Which of the following is true? (Select two.)

Router B will serve as active router, and Router A will server as standby router.

The virtual IP address is 172. 16. 0. 1

You have two routers which should be configured for gateway redundancy. The following commands are entered for each router.   
A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#vrrp 3 priority 120 A(configif)#vrrp 3 ip 172. 16. 1. 2B(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 1 B(configif)#vrrp 3 priority 120 B(configif)#vrrp 3 preempt B(configif)#vrrp 3 ip 172. 16. 1. 2

Which of the following is true? (Select two.)

The virtual IP address is 172. 16. 1. 2You have two routers that should be configured for gateway redundancy. The following commands are entered for each router:   
A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#glbp 2 priority 115 A(configif)#glbp 2 ip 172. 16. 0. 1 A(configif)#glbp 2 preempt A(configif)#glbp 2 loadbalancing hostdependent A(configif)#glbp 5 priority 150B(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 3 B(configif)#glbp 2 priority 100 B(configif)#glbp 5 ip 172. 16. 0. 2 B(configif)#glbp 5 priority 150

Which of the following is true? (Select two.)

GLBP load balancing for group 2 will be hostdependent.

Router B will serve as the AVG for GLBP group 5

If an HSRP group has a router in active state and a router in standby state, what is the result when additional routers are added to the same group? They are additional HSRP member routers. Which of the following gateway redundancy protocols are Cisco proprietary? (Select all that apply.)

GLBP

HSRP

Which of the following best describes the various VRRP group roles? (Select two.)

A master router forwards traffic destined to the virtual IP address.

A backup router will become the master router should the existing master router fail.

A host's ARP cache has MAC address of 0000. 0C07. AC05 entry. What does this mean? (Select two.)

The host is configured with a HSRP virtual IP address as the default gateway.

The HSRP group managing traffic sent from the host is group 5.

Which of the following is true concerning GLBP? (Select two.)

Load balancing is achieved by the AVG replying to the host's ARP requests with different virtual MAC addresses.

A GLBP group can have up to four member routers acting as IP default gateways.

Which effect does the standby 2 priority 110 interface configuration command have? The group priority is increased above the default. You have two routers that should be configured for gateway redundancy. The following commands are entered for each router:   
A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#standby 2 priority 150 A(configif)#standby 2 ip 172. 16. 0. 1 A(configif)#standby 2 preemptB(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 3 B(configif)#standby 2 priority 100

Which of the following is true? (Select two.)

If the preempted router fails and then recovers, it will send a coup message to return as the active router.

Router A will serve as active router, and Router B will server as standby router.

You have two routers which should be configured for gateway redundancy. The following commands are entered for each router.

A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#standby 2 priority 150 A(configif)#standby 2 ip 172. 16. 1. 2 A(configif)#standby 2 preempt A(configif)#standby 5 priority 110

B(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 1 B(configif)#standby 2 priority 110 B(configif)#standby 5 ip 172. 16. 2. 1 B(configif)#standby 5 preempt B(configif)#standby 5 priority 150

Which of the following is true? (Select two.)

Router A will serve as the active router for HSRP group 2 and the backup router for HSRP group 5.

Router B will serve as the active router for HSRP group 5 and the backup router for HSRP group 2.

What happens when an HSRP active router fails? (Select two.)

The HSRP standby router becomes the active router after the holdtime expires on the hello message.

Additional HSRP member routers transition from the listen state after the holdtime expires on the hello message.

What is the primary purpose of gateway redundancy? To overcome a single point of failure on the next hop router. How does the HSRP group priority value affect the router's role within the group? (Select two.)

The router with the second highest priority becomes the standby router.

The router with the highest priority becomes the active router.

What happens when the host sends an ARP request to the HSRP group 3's virtual IP address? The active router will return 0000. 0C07. AC03 as the MAC address for the default gateway. Which of the following best describes the roundrobin load balancing method in GLBP? A host sends an ARP request, the AVG returns a virtual MAC address based on its table of MAC addresses assigned to AVF. When another host sends an ARP request, the AVG replies with the next MAC address in its table, and so on. What effect does the standby 3 track serial 0/0 interface configuration command have? (Select two.)

Decrements the HSRP group priority by 10 if the interface goes down.

The switch monitors the router's interface that is used by HSRP to forward traffic from the hosts.

You have two routers that should be configured for gateway redundancy. The following commands are entered for each router:

A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#standby 2 priority 115 A(configif)#standby 2 ip 172. 16. 0. 1 A(configif)#standby 2 track serial 0/0   
B(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 3 B(configif)#standby 2 priority 100

Which of the following is true? (Select two.)

Router A will serve as active router, and Router B will server as standby router.

If router A fails and then recovers, it will serve as the standby router.

You have two routers which should be configured for gateway redundancy. The following commands are entered for each router.

A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#glbp 2 priority 150 A(configif)#glbp 2 ip 172. 16. 0. 1 A(configif)#glbp 2 preempt

B(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 3 B(configif)#glbp 2 priority 100

Which of the following is true? (Select three.)

Router A will serve as the AVG, and Router B will serve as the standby virtual gateway.

If the preempted router fails and then recovers, it will send a coup message to return as the AVG.

Both router A and router B will serve as AVFs.

When configuring an HSRP group, which router(s) should be configured with the virtual IP address? Any one of the routers in the HSRP group. What happens after the HSRP holdtime expires on the hello message? (Select two.)

The HSRP standby router becomes the active router.

Additional HSRP member routers transition from the listen state.

Which of the following does not accurately describe the HSRP states? Learn is when the router has received the virtual IP address from a hello message sent by the active router. Which of the following is not true concerning VRRP? Backup routers send advertisements to inform other routers in the VRRP group of its status. In which of the following scenarios would a router send a resign message? If a preempted active router fails, the standby router becomes the active router. If the preempted active router regains service, it will send a coup message. The current active router sends the resign message after receiving the coup message. What effect does the standby 2 track serial 0/0 25 interface configuration command have? (Select two.)

Decrements the HSRP group priority by 25 if the interface goes down.

The HSRP standby router will become the active router if both routers have default configurations.

You have two routers which should be configured for gateway redundancy. The following commands are entered for each router.

A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#standby 2 priority 115 A(configif)#standby 2 ip 172. 16. 0. 1 A(configif)#standby 2 track serial 0/0 25

B(config)#int fa 0/2   
B(configif)#ip address 172. 16. 1. 3 B(configif)#standby 2 priority 100 B(configif)#standby 2 preempt

Which of the following is true?

Router A will become the standby router if the Serial 0/0 interface fails

You have two routers, router A and router B, which should be configured for gateway redundancy. The following commands are entered for router A.

A(config)#track 5 interface serial 0/0 lineprotocol A(config)#int fa 0/2   
A(configif)#ip address 172. 16. 1. 2 A(configif)#glbp 2 priority 150 A(configif)#glbp 2 ip 172. 16. 0. 1 A(configif)#glbp 2 preempt A(configif)#glbp 2 weighting 110 lower 95 upper 105   
A(configif)#glbp 2 weighting track 5 decrement 5

Which of the following is true? (Select two.)

If serial 0/0 fails, router A will still be considered a good AVF for the GLBP group.

When router A sends an advertisement with a weighting of 110, the AVG may use router A as an AVF

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