Cisco

Exam Questions 300-135

TSHOOT Troubleshooting and Maintaining Cisco IP Networks

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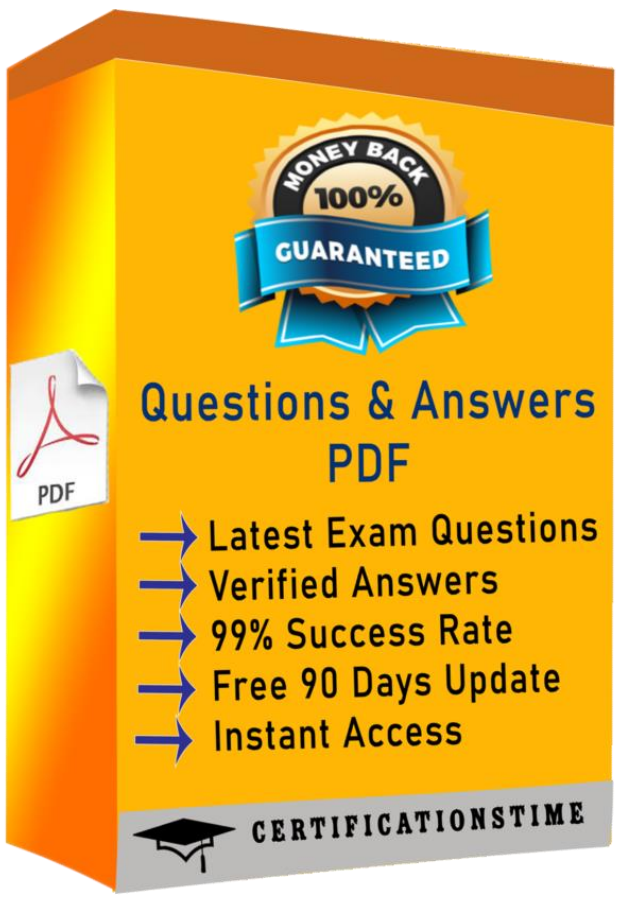

QUESTION 1

Which of the following would provide good baseline documentation to have on hand when analyzing potential problems? (Choose all that apply.)

A. User authentication ID and password

B. User profile

C. Output of debug

D. Output of show interface

E. Result of ping

F. Output of show process cpu

Answer: C,D,E,F

QUESTION 2

The implementations group has been using the test bed to do a u2021proof-of-conceptu2021 that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.

Use the supported commands to isolated the cause of this fault and answer the following questions.

What is the solution to the fault condition?

A. In Configuration mode, using the interface range Fa 1/0/1 u2013 2, then no switchport port- security interface configuration commands. Then in exec mode clear errdisable interface fa 1/01 u2013 2 vlan 10 command

B. In Configuration mode, using the interface range Fa 1/0/1 u2013 2, then no switchport port-

security, followed by shutdown, no shutdown interface configuration commands.

C. In Configuration mode, using the interface range Fa 1/0/1 u2013 2, then no switchport port- security interface configuration commands.

D. In Configuration mode, using the interface range Fa 1/0/1 u2013 2, then no switchport port- security interface configuration commands. Then in exec mode clear errdisable interface fa 1/0/1, then clear errdisable interface fa 1/0/2 commands.

Answer: B

Explanation:

On ASW1, we need to remove port-security under interface fa1/0/1 & fa1/0/2.

Reference: http://www.cisco.com/en/US/tech/ABC389/ABC621/technologies_tech_note09186a00806c d87b.shtml

QUESTION 3

FCAPS is a network maintenance model defined by ISO. It stands for which of the following?

A. Fault Management

B. Action Management

C. Configuration Management

D. Protocol Management

E. Security Management

Answer: A,C,E

Explanation:

The FCAPS maintenance model consists of the following:

FCAPS Maintenance Tasks:

u2711 Fault u2013 collect info from routers and switches, email at threshold limits, respond to trouble tickets

u2711 Configuration u2013 log changes to network h/w or s/w. alert relevant folks of planned changes

u2711 Accounting u2013 invoice users

u2711 Performance u2013 monitor network performance and deploy QoS

u2711 Security u2013 deploy firewall, VPN, IPS, create security policy, use AAA to validate credentials, etc.

QUESTION 4
Which of the following is a valid host IPv6 address? (Choose all that apply.)

A. ff02:a:b:c::l/64

B. 2001:aaaa: 1234:456c: 1/64

C. 2001:000a:lb2c::/64

D. 2fff:f:f:f::f/64

E. ff02:33ab:l:32::2/128

F. 2001:bad:2345:a:b::cef/128

Answer: B,F
Explanation: Option B is valid, assuming theres a faulty colon : in the IPv6 Address, just before the last 1, that is: 2001:aaaa:1234:456c::1/64Option F is valid, dispite its odd network mask (128 bits), sometimes used in tunnel links.

Incorrect:
Option A is invalid, since it is a Multicast addressOption C seems to be invalid because the 3rd group of characters includes an l (lb2c), but if it is a 1 instead of an l (faulty scan) and the required options are 3 instead of 2, then this address is still valid (2001:000a:1b2c::/64), because the 4th group of characters would be 0000 (remember that we can represent a continuous sequence of zeros by ::).Option D is definitely invalid since it is a reserved address. As states the IANA online :document about the IPv6 Unicast Global Addresses, the range below is reserved, not allocated to any RIR (Regional Internet Registry): 2E00:0000::/7 IANA 1999-07-01 RESERVED

Reference: http://www.iana.org/assignments/ipv6-unicast-address-assignments/ipv6-

unicast-address-assignments.txt

QUESTION 5
Which of the following commands will remove all dynamic entries for a router's NAT table?

A. clear nat translations

B. clear ip nat translations*

C. clear ip nat statistics

D. clear ip nat transactions *

E. clear ip nat translations

F. clear ip nat translations all

Answer: B

QUESTION 6
The implementations group has been using the test bed to do a u2021proof-of-conceptu2021 that requires both Client 1 and Client 2 to access the WEB Server at 209.65.200.241. After several changes to the network addressing, routing scheme, DHCP services, NTP services, layer 2 connectivity, FHRP services, and device security, a trouble ticket has been opened indicating that Client 1 cannot ping the 209.65.200.241 address.

Use the supported commands to isolated the cause of this fault and answer the following questions.

What is the solution to the fault condition?

A. Under the interface Serial0/0/0 configuration enter the ip nat inside command.

B. Under the interface Serial0/0/0 configuration enter the ip nat outside command.

C. Under the ip access-list standard nat_trafic configuration enter the permit 10.2.0.0 0.0.255.255 command.

D. Under the ip access-list standard nat_trafic configuration enter the permit 209.65.200.0

0.0.0.255 command.

Answer: C
Explanation:
On R1 we need to add the client IP address for reachability to server to the access list that is used to specify which hosts get NATed.

Topic 11, Ticket 6 : R1 ACLTopology Overview (Actual Troubleshooting lab design is for below network design)

u2711 Client Should have IP 10.2.1.3

u2711 EIGRP 100 is running between switch DSW1 & DSW2

u2711 OSPF (Process ID 1) is running between R1, R2, R3, R4

u2711 Network of OSPF is redistributed in EIGRP

u2711 BGP 65001 is configured on R1 with Webserver cloud AS 65002

u2711 HSRP is running between DSW1 & DSW2 Switches

The company has created the test bed shown in the layer 2 and layer 3 topology exhibits. This network consists of four routers, two layer 3 switches and two layer 2 switches.

In the IPv4 layer 3 topology, R1, R2, R3, and R4 are running OSPF with an OSPF process number 1.

DSW1, DSW2 and R4 are running EIGRP with an AS of 10. Redistribution is enabled where necessary.

R1 is running a BGP AS with a number of 65001. This AS has an eBGP connection to AS 65002 in the ISPu2021s network. Because the companyu2021s address space is in the private range. R1 is also providing NAT translations between the inside (10.1.0.0/16 & 10.2.0.0/16) networks and outside (209.65.0.0/24) network.

ASW1 and ASW2 are layer 2 switches.

NTP is enabled on all devices with 209.65.200.226 serving as the master clock source. The client workstations receive their IP address and default gateway via R4u2021s DHCP server.

The default gateway address of 10.2.1.254 is the IP address of HSRP group 10 which is running on DSW1 and DSW2.

In the IPv6 layer 3 topology R1, R2, and R3 are running OSPFv3 with an OSPF process number 6.

DSW1, DSW2 and R4 are running RIPng process name RIP_ZONE.

The two IPv6 routing domains, OSPF 6 and RIPng are connected via GRE tunnel running over the underlying IPv4 OSPF domain. Redistribution is enabled where necessary.

Recently the implementation group has been using the test bed to do a u2021proof-of-conceptu2021 on several implementations. This involved changing the configuration on one or more of the devices. You will be presented with a series of trouble tickets related to issues introduced during these configurations.

Note: Although trouble tickets have many similar fault indications, each ticket has its own issue and solution.

Each ticket has 3 sub questions that need to be answered & topology remains same. Question-1 Fault is found on which device,

Question-2 Fault condition is related to,

Question-3 What exact problem is seen & what needs to be done for solution

Client is unable to ping IP 209.65.200.241u2026

Solution

Steps need to follow as below:-

u2711 When we check on client 1 & Client 2 desktop we are not receiving DHCP address from R4

u2711 Ipconfig ----- Client will be receiving IP address 10.2.1.3

u2711 IP 10.2.1.3 will be able to ping from R4 , R3, R2, R1

u2711 Look for BGP Neighbourship

u2711 Sh ip bgp summary ----- State of BGP will be in active state. This means connectivity issue between serial

u2711 Check for running config. i.e sh run --- over here check for access-list configured on interface as BGP is down (No need to check for NAT configuration as its configuration should be right as first need to bring BGP up)

u2711 In above snapshot we can see that access-list of edge_security on R1 is not allowing wan IP network

u2711 Change required: On R1, we need to permit IP 209.65.200.222/30 under the access list.