CCNA(640-802) Hotspot: Topology Based Questions
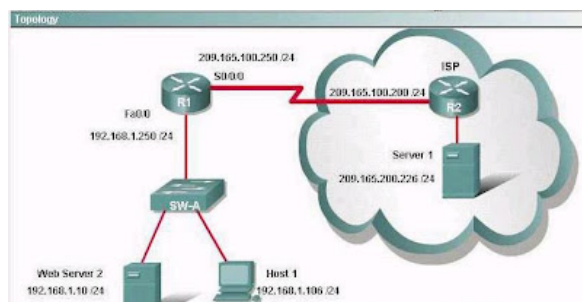
Instructions

This item contains several questions that you must answer. You can view these questions by clicking on the corresponding button to the left. Changing questions can be accomplished by clicking the numbers to the left of each question. In order to complete the questions, you will need to refer to the topology.

To gain access to the topology, click on the topology button at the bottom of the screen. When you have finished viewing the topology, you can return to your questions by clicking on the Questions button to the left.

Each of the windows can be minimized by clicking on the [-]. You can also reposition a window by dragging it by the title bar.

Scenario

Refer to the topology. The diagram represents a small network with a single connection to the Internet. Using the information shown, answer the five questions shown on the Questions tab.

Topology

209.165.100.250 /24
S0/0/0
ISP
209.165.100.200 /24
R1
R2
Fa0/0
192.168.1.250 /24
Server 1
209.165.200.226 /24
SW-A
Web Server 2
192.168.1.10 /24
Host 1
192.168.1.106 /24

Question #1

If the router R1 has a packet with a destination address 192.168.1.255, what describes the operation of the network?

- ☑ R1 will forward the packet out all interfaces.
- ○ R1 will drop this packet because this it is not a valid IP address.
- ○ As R1 forwards the frame containing this packet, Sw-A will add 192.168.1.255 to its MAC table.
- ○ R1 will encapsulate the packet in a frame with a destination MAC address of FF-FF-FF-FF-FF-FF.
- ○ As R1 forwards the frame containing this packet, Sw-A will forward it to the device assigned the IP address of 192.168.1.255.

Question 1:   If router has a packet destination address 192.168.1.255. What describes the operation of the network?   **Answer: R1 will drop this packet because it is not a valid ip address**   Explanation: The destination IP address **192.168.1.255** is broadcast address of the network 192168.1.0 /24 on router R1.   **Network Address**: 192.168.1.0 subnet mask: 255.255.255.0 Network valid host range: 192.168.1.1 ? 192.168.1.254   **Broadcast Address** : 192.168.1.255   Since router (R1) received a packet with destination IP address (192.168.1.255) which is broadcast address so it simply discards the packet as Forwarding broadcast packet can lead to severe storms of packets, and if uncontrolled could lead to network overload.

Question #2

Users on the 192.168.1.0 /24 network must access files located on the Server 1. could be configured on router R1 for file requests to reach the server?

- ○ ip route 0.0.0.0 0.0.0.0 s0/0/0
- ○ ip route 0.0.0.0 0.0.0.0 209.165.200.226
- ☑ ip route 209.165.200.0 255.255.255.0 192.168.1.250
- ○ ip route 192.168.1.0 255.255.255.0 209.165.100.250

Question 2:   Users on the 192.168.1.0 /24 network must access files located on the server 1. What route could be configured on router R1 for the file requests to reach the server ?   **Answer: ip route 0.0.0.0 0.0.0.0 s 0/0/0**   Explanation: To enable users on 192.168.1.0 network to access files on server1, we need to establish a default static route.   **Static route syntax:**   ip route prefix mask {ip-address interface-type interface-number [ip-address]} [distance] [name] [permanent track number] [tag tag]   From the options provided for this question the correct default static route is   **ip route 0.0.0.0** 0.0.0.0 S 0/0/0   **PS:** As per best practices static route to server1 on R1 should have been   **ip route 209.165.200.0 255.255.255.0 209.165.100.200**   (or)   **ip route 209.165.200.0 255.255.255.0 s 0/0/0**

Question #3

When a packet is sent from Host 1 to Server 1, in how many different frames will the packet be encapsulated as it is sent across the internetwork?

- ○ 0
- ○ 1
- ○ 2
- ☑ 3
- ○ 4

Question 3:   When a packet is sent from Host1 to Server1,in how many different frames will the packet be encapsulated as it is sent across the internetwork?   **Answer:** 3   Explanation: **First:** Host1 encapsulates the packet into frames and forwards to the switch.   Switch in turn forwards the same frame to router R1.   **Second:** Router R1 receives the frame on one interface and it is encapsulates into new packet once it leaves the router R1 towards the direction of server1.   **Third:** R2 receives this packet and it also encapsulates the frame into new packet when it is forwarded to server1 on different interface of R2.   Therefore the packet is sent using three different frames to reach from Host1 to server1.
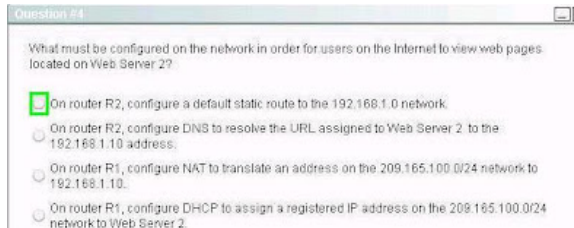
Question 4:   What must be configured on the network in order for users on the internet to view web pages located on web server2?   **Answer:** On router R1, configure a NAT to translate address on 209.165.100.0 to 192.168.1.0 network.
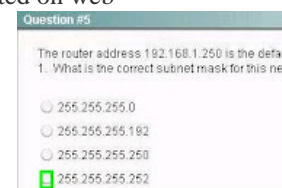
Question 5:   The router address 192.168.1.250 is the default gateway for both web server2 and host 1. What is the correct subnet mask for this network?   Answer: 255.255.255.0   Explanation: Given subnet mask for this network is 255.255.255.0 based on the exhibit.   To find the correct subnet mask for this network based on number of devices shown in the exhibit that are already configured with IP address and by not wasting IP addresses scheme.   The network 192.168.1.0 consists of only three devices as per the exhibits which are configured with IP address.   **R1(fa 0/0)** : 192.168.1.250 (default gateway as per the question)   **Host1**: 192.168.1.10   **Web server 2**: 192.168.1.106   correct subnet mask that will cover all above IP address is 255.255.255.0 **That is all, hope to helpful for you. Best Luck for ur CCNA 640-802 Exam.** If you need the complete pass4sure test questions for 640-802 Exam, you can visit Latest Pass4sure 640-802.(Pass4sure 640-802 Questions with explaintion) maye it helpful for ur exam.