>traceroute

Network Training Advanced Assessment

1) Is an address that ends in .0 always a network address? (2 pts) Is an address that ends in .255 always a broadcast address? (2 pts) Provide the network, first useable, last useable, and broadcast address associated with 10.12.25.67 /21. (6 pts)

2) If you plugged into a switch (without configuring any port mirroring), began running Wireshark, what type of Destination IP Addresses (what number range in the first octet?) would you be looking for in the capture to identify Multicast traffic flooding the network? (3 pts) If you discovered multicast traffic, could you resolve the flooding with unmanaged switches? (1 pt) With managed switches? (1 pt) How? (3 pts)

3) What are the benefits of the proprietary redundancy protocols we reviewed (HiperRing, TurboRing, etc.) in comparison to the open industry standard protocols (STP, RSTP)? (4 pts) What are the drawbacks? (4 pts)

4) We discussed Routers as the first piece of hardware that could isolate broadcast domains. Later we discussed a technology that could also provide broadcast domain isolation. Name this technology. (8 pts)

5) If I configure two interfaces on a ROUTER for two different networks in test room A and two interfaces on a FIREWALL for two different networks in test room B, what is the difference between how those devices will route traffic for their respective networks? (8 pts) Assume out-of-box configuration.

6) Name the technology that allows you to configure/restrict the traffic "allowed" to communicate from one network to another across a router. (8 pts)

7) If you have two LANs (not physically connected today) that are both addressed as 10.10.10.0 /24 and you'd like to connect both to a common third network, is there any hardware and technology to leverage to avoid having to completely re-address one of the LANs? (8 pts)

8) If you can reach a server behind a router/firewall across the internet by simply configuring Port Forwarding on that router/firewall, why configure a VPN? (8 pts)

9) If you're troubleshooting why a client application is not receiving data from a server and you have tested the cabling (layer 1), confirmed client can ping the server (layers 2 and 3), what would be the parameter of interest to test at layer 4? (5 pts) What are some ways to test this? (5 pts)

10) Does a continuity test on a Cat5e cable guarantee the cable is certified for 1000BASE-TX communication? (4 pts) What would be required to certify the cable? (4 pts)

11) List two reasons you might choose to utilize fiber over copper in an application. (4 pts) When would you typically utilize single mode over multimode? (4 pts)

12) What are the 5 key functions that all switches, unmanaged or managed, perform that make them more intelligent than a hub? (8 pts)

Not sure about your answers? Reach out to info@traceroutellc.com for more information about our OT networking training.