Exam Report: 6.5.9 Practice Questions
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Overall Performance

Your Score: 71%

Passing Score: 80%

View results by: ○ Objective Analysis   ◉ Individual Responses
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Individual Responses

▼ **Question 1:**   <u>Correct</u>

Which of the following benefits apply only to creating VLANs with switches and not to segmenting the network with regular switches?

   ○ You can provide guaranteed bandwidth between two devices.

   ○ You can create multiple collision domains.

   ○ You can segment the network based on physical location.

➡ ◉ You can create multiple broadcast domains.

Explanation

By creating a VLAN, you create multiple broadcast domains, with each VLAN being in its own broadcast domain. Using switches without VLANs lets you segment the network based on physical location, create multiple collision domains, and provide guaranteed bandwidth between devices.

References

LabSim for Network Pro, Section 6.5.
[netpro18v5_all_questions_en.exm C802_209 C801 403U-131 [25]]

▼ **Question 2:**   <u>Correct</u>

[image] This question includes an image to help you answer the question.   **View Image**

You have two switches connected together as shown in the following diagram. How many broadcast domains are in the network shown?

   ○ 0

   ○ 1

➡ ◉ 2

   ○ 4

   ○ 5

Explanation

There are two broadcast domains. Each VLAN is in its own broadcast domain.

When you connect devices to a switch, each switch port connection is in its own collision domain. In this graphic, there are five collision domains.

References

LabSim for Network Pro, Section 6.5.
[netpro18v5_all_questions_en.exm C802_209 MULTIPLE CHOICE [7]]

▼ **Question 3:**   Incorrect

[image of chapter icon] This question includes an image to help you answer the question.   **View Image**

Computers A and B are on the same VLAN and are separated by two switches as shown in the exhibit. Computer A sends a frame to Computer B.

Which of the following best describes the composition of the frame as it travels from A to B?

○ Computer A sends a normal frame. The first switch appends a VLAN ID to the frame. The VLAN ID remains on the frame through the second switch up to Computer B.

➡ ○ Computer A sends a normal frame. The first switch appends a VLAN ID to the frame. The second switch removes the VLAN ID before forwarding it to Computer B.

○ Computer A sends a normal frame. The first switch forwards the frame to the second switch, where the VLAN ID is appended to the frame and forwarded to Computer B.

⦿ ~~Computer A appends a VLAN ID to the frame. It travels from switch to switch and arrives at Computer B where it removes the VLAN ID.~~

Explanation

VLAN IDs are understood only by switches and are used by switches for inter-switch traffic. The first switch appends the VLAN ID, and the second switch removes it.

References

LabSim for Network Pro, Section 6.5.
[netpro18v5_all_questions_en.exm C802_208 C801 403-143 [7]]

▼ **Question 4:**   Incorrect

Which of the following statements accurately describes a VLAN ID?

➡ ○ Switches append a VLAN ID to the header of each frame to identify the virtual network it belongs to.

⦿ ~~VLAN IDs are defined at the Network layer and help route the frame through the switch fabric.~~

○ VLAN IDs identify both the source and destination VLAN. They are like network addresses, except they exist at the Data Link layer.

○ VLAN IDs identify the VLAN where the frame originated so the receiving host can reply.

Explanation

A VLAN ID is a unique identifier attached to each frame. Switches in the network understand the ID as they forward the frame. When the frame reaches its destination, the last switch removes the VLAN ID because no other device understands it. VLAN IDs work at the Data Link layer.

References

LabSim for Network Pro, Section 6.5.
[netpro18v5_all_questions_en.exm C802_208 C801 403U-99 [35]]

▼ **Question 5:**   Correct

You manage a single subnet with three switches. The switches are connected to provide redundant paths between the switches.

Which feature allows the switches to pass VLAN traffic between the switches?

○ 802.1x

○ Spanning tree

○ PoE

➡ ◉ Trunking

○ Bonding

Explanation

A *trunk* port is used to connect two switches together. A trunk port is a member of all VLANs and carries traffic between the switches. When trunking is used, frames that are sent over a trunk port are tagged by the first switch with the VLAN ID so that the receiving switch knows which VLAN the frame belongs to. The trunking protocol describes the format that switches use for tagging frames with the VLAN ID. Because end devices do not understand the VLAN tags, the tag is removed from the frame by the switch before the frame is forwarded to the destination device.

802.1x is an authentication protocol used with port security (or port authentication). Spanning tree is a protocol on a switch that allows the switch to maintain multiple paths between switches within a subnet. The spanning tree protocol runs on each switch and is used to select a single path between any two switches. Power over Ethernet (PoE) supplies power to end devices through the RJ45 Ethernet switch port. Bonding groups multiple switch ports into a single logical port, allowing both ports to be used to communicate with a single device.

References

LabSim for Network Pro, Section 6.5.
[netpro18v5_all_questions_en.exm NP09_3-3 #2]

▼ **Question 6:**   Correct

You manage a network with two switches. The switches are connected together through their Gigabit Ethernet uplink ports.

You define VLAN 1 and VLAN 2 on each switch. A device on the first switch in VLAN 1 needs to communicate with a device on the second switch in VLAN 1.

What should you configure to allow communication between these two devices through the switches?

○ Layer 3 switching

○ Bonding

➡ ◉ Trunking

○ Spanning tree

Explanation

A trunk port is used to connect two switches together.

- Typically, Gigabit Ethernet ports are used for trunk ports, although any port can be a trunking port.
- A trunk port is a member of all VLANs and carries traffic between the switches.
- When trunking is used, frames that are sent over a trunk port are tagged by the first switch with the VLAN ID so that the receiving switch knows which VLAN the frame belongs to.
- The trunking protocol describes the format that switches use for tagging frames with the VLAN ID.
- Because end devices do not understand the VLAN tags, the tag is removed from the frame by the switch before the frame is forwarded to the destination device.
- VLAN tagging is only used for frames that travel between switches on the trunk ports.

Use a Layer 3 switch or a router to enable devices in different VLANs to communicate with each other. Spanning tree is a protocol on a switch that allows it to maintain multiple paths between switches within a subnet. The spanning tree protocol runs on each switch and is used to select a single path between any two switches. Bonding allows multiple switch ports to be used at the same time to reach a specific destination.

References

LabSim for Network Pro, Section 6.5.
[netpro18v5_all_questions_en.exm NP09_3-3 #8]

▼ **Question 7:**   Correct

When configuring VLANs on a switch, what type of switch ports are members of all VLANs defined on the switch?

○ Gigabit and higher Ethernet ports.

○ Uplink ports.

○ Each port can only be a member of a single VLAN.

○ Any port not assigned to a VLAN.

➡ ◉ Trunk ports.

Explanation

A trunk port is a member of all VLANs defined on a switch and carries traffic between the switches. When trunking is used, frames that are sent over a trunk port are tagged by the first switch with the VLAN ID so that the receiving switch knows which VLAN the frame belongs to. Typically, uplink ports (which are faster than the other switch ports) are used for trunk ports, although any port can be designated as a trunking port.

On an unconfigured switch, ports are members of a default VLAN (often designated VLAN 1). When you remove a port's VLAN membership, it is reassigned back to the default VLAN. Therefore, the port is always a member of one VLAN.

References

LabSim for Network Pro, Section 6.5.
[netpro18v5_all_questions_en.exm NP09_3-3 #11]