Exam Report: 6.1.7 Practice Questions

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Overall Performance

Your Score: 80%

Passing Score: 80%

View results by: Objective Analysis Individual Responses

Individual Responses

Question 1: Correct

Which of the following terms refers to a network resource sharing model that uses access control lists saved on each computer?

- Extranet
- Client/server
- Intranet
- Peer-to-peer

Explanation

Access to shared resources are controlled separately on each computer in the peer-to-peer model (a Windows peer-to-peer network is called a *workgroup*). For example, each computer in a peer-to-peer network maintains its own set of user accounts.

An intranet is a private network that uses internet technologies. Services on an intranet are only available to hosts that are connected to the private network. An extranet is a private network that uses internet technologies, but its resources are made available to external (but trusted) users. The client/server model places shared resources on a server. Resources are accessed by clients.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_NET_FACT_NETWORK_MODEL]

Question 2: Correct

Match the network types on the left with the descriptions on the right. Each network type may be used once, more than once, or not at all.

A network in a small geographic area that typically uses wires to connect systems together.

- Local Area Network (LAN)

A small network used for connecting devices, such as a notebook computer, a wireless headset, a wireless printer, and a smartphone.

- Personal Area Network (PAN)

A network that is typically owned and managed by a city as a public utility.

- Metropolitan Area Network (MAN)

A group of networks that are geographically isolated, but are connected to form a large internetwork.

- Wide Area Network (WAN)

Similar to a standard LAN, but uses radio signals instead of wires to connect systems together.

✔ Wireless Local Area Network (WLAN)

A network that covers an area as small as a few city blocks to as large as an entire city.

✔ Metropolitan Area Network (MAN)

A set of subnets connected to each other, typically by wires, using at least one router.

✔ Local Area Network (LAN)

Explanation

The following network types are defined by the geographical area they cover:

Personal Area Network (PAN): a very small network used for communication between personal devices. For example, a PAN may include a notebook computer, a wireless headset, a wireless printer, and a smartphone. A PAN's range is limited to only a few feet.

Local Area Network (LAN): a network in a small geographic area, like an office. A LAN typically uses wires to connect systems together. For example, a LAN is usually a set of subnets connected to each other using routers to connect the subnets.

Wireless Local Area Network (WLAN): a network that covers an area that is roughly the same size as a standard LAN. However, it uses radio signals instead of wires to connect systems together.

Metropolitan Area Network (MAN): a network that covers an area as small as a few city blocks to as large as an entire metropolitan city. MANs are typically owned and managed by a city as a public utility.

Wide Area Network (WAN): a group of LANs that are geographically isolated, but are connected to form a large internetwork.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_NET_FACT_NETWORK_TYPES_01]

Question 3: Correct

A group of workers in an office space communicate with each other on their smartphones and tablet devices through an ad hoc network linked using Bluetooth technology protocols.

Which of the following network types is in use?

- ○ Local Area Network (LAN)
- ○ Wide Area Network (WAN)
- ○ Metropolitan Area Network (MAN)
- ➡ ◉ Personal Area Network (PAN)

Explanation

A piconet is an ad hoc network that connects personal devices and runs over Bluetooth technology. A piconet is an example of a PAN.

A WAN covers a large geographical area and is made up of many smaller networks.
A LAN covers a small local area and is used to connect workstations, printers, and other devices.
A MAN covers a large campus or city and is smaller than a WAN.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_NET_FACT_NETWORK_TYPES_04]

Question 4: Incorrect

You have a network that uses a logical bus topology. How do messages travel through the network?

- Messages are sent directly to the correct destination device.
- ~~Messages travel from one device to the next until they reach the destination device.~~
- Messages are broadcast to all devices connected to the network.
- Messages are sent to a central device, which then forwards the message to the destination device.

Explanation

Messages sent using a physical bus topology are broadcast to all devices in the network. The device in the middle of the star (typically a hub) receives the message and forwards it on to all other devices.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_TOP_FACT_LOGICAL_BUS]

Question 5: Correct

You have a network that uses a logical ring topology. How do messages travel through the network?

- Messages are sent directly to the destination device only.
- Messages are sent to a central device, which then forwards the message to the destination device.
- Messages are sent to all devices connected to the network.
- Messages travel from one device to the next until they reach the destination device.

Explanation

In a logical ring topology, messages travel to each device in turn. If the message is not intended for that device, the message is forwarded to the next device on the network.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_TOP_FACT_LOGICAL_RING]

Question 6: Correct

You have implemented an ad hoc wireless network that doesn't employ a wireless access point. Every wireless network card can communicate directly with any other wireless network card on the network. What type of physical network topology has been implemented in this type of network?

- Star
- Mesh
- Tree
- Bus
- Ring

Explanation

This type of network uses a physical mesh topology. There's no central connecting point. Any host can communicate directly with any other host on the network. A mesh network, such as this one, is usually impractical on a wired network. Each host would have to have a separate dedicated network interface and cable for each host on the network. However, a mesh topology can be implemented with relative ease on a wireless network due to the lack of wires.

References

TestOut PC Pro - 6.1 Networking Overview

[e_netovr_pp6.exam.xml Q_TOP_FACT_MESH_TOPOLOGY_01]

Question 7: Correct

You have been asked to implement a network infrastructure that will accommodate failed connections. Which of the following network topologies provides redundancy for a failed link?

- (selected) Mesh
- Ring
- Bus
- Star

Explanation

In a mesh topology, each network device is interconnected with all other network nodes. This creates multiple data paths. And in the event of a failed link, the data has an alternate route to arrive at its destination.

The star topology connects network devices to the network with a single patch cable, and the failure of a patch cable will make the connected device unavailable. The bus topology has a single point of failure. If there is a break in the network media, the network will be unavailable. A single break in a physical ring topology will disable the network.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_TOP_FACT_MESH_TOPOLOGY_02]

Question 8: Correct

Which of the following topologies connects each network device to a central hub?

- Mesh
- Ring
- (selected) Star
- Bus

Explanation

Star topologies connect each device on the network to a central hub.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_TOP_FACT_STAR_TOPOLOGY_01]

Question 9: Correct

What device is used to create a physical star topology?

- Bridge
- Router
- Repeater
- (selected) Switch

Explanation

A physical star topology uses a switch or a hub. Routers are used to connect multiple subnets together. A repeater regenerates a network signal so that it can be transmitted for longer distances.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_TOP_FACT_SWITCH_01]

Question 10: Incorrect

Which of the following is the best definition for a LAN?

- An extension of a private network over a shared or public network, such as the internet.
- The interconnection of components, such as laptops, printers, keyboards, and other wireless devices within a personal range (typically 10 meters or less).
- ~~A network whose computers and servers are separated geographically, but still connected.~~
- A network in a small geographic area, like in an office.

Explanation

A LAN is a network in a small geographic area, like in an office.

A WAN is a network whose computers and servers are geographically far apart, but still connected. A PAN (personal area network) is the interconnection of components, such as laptops, mobile devices, printers, mice, keyboards, and other Bluetooth equipped devices, using some form of wireless technology within a personal range (typically 10 meters or less). A VPN is the extension of a private network over a shared or public network, such as the internet.

References

TestOut PC Pro - 6.1 Networking Overview
[e_netovr_pp6.exam.xml Q_TOP_FACT_WHAT_IS_LAN]