CompTIA Network Guide to Networks 9th edition West Test Bank

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Name:_____ Class:_____ Date:_____

Module 01 - Introduction to Networking

1. What is the logical group of Windows Servers controlling the network access to a group of computers also known by?

a. Client
b. RAID
c. Router
d. Domain

ANSWER: d

FEEDBACK:

a. Incorrect. A computer making a request from another is called the client.
b. Incorrect. RAID is used as a backup by servers so that if one hard drive fails, another one automatically takes its place.
c. Incorrect. A router is a switching device for networks, which is able to route network packets based on their addresses to other networks or devices.
d. Correct. The logical group of Windows Servers controlling the network access to a group of computers is also known as a Windows domain.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
ACCREDITING STANDARDS: WEST.NET+.23.1.2 - Explain the characteristics of network topologies and network types.
TOPICS: Network models
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

2. Which of the following statements is true?

a. Physical topologies mostly refer to how software controls access to network resources.
b. In a peer-to-peer network model, each computer controls its own administration, resources, and security.
c. In a general scenario, if a network supports fewer than 15 computers, a client-server network model is the way to go.
d. Logical topologies mostly refer to how computers work together with radio signals and other devices to form the physical network.

ANSWER: b

FEEDBACK:

a. Incorrect. This statement stands true for logical topologies instead of physical topologies.
b. Correct. This statement is true.
c. Incorrect. In such a scenario, generally a peer-to-peer network model is preferred.
d. Incorrect. This statement stands true for physical topologies instead of logical topologies.

POINTS: 1

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CompTIA Network Guide to Networks 9th edition West Test Bank

Module 01 - Introduction to Networking

QUESTION TYPE:	Multiple Choice
HAS VARIABLES:	False
LEARNING OBJECTIVES:	WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
ACCREDITING STANDARDS:	WEST.NET+.23.1.2 - Explain the characteristics of network topologies and network types.
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DATE CREATED:	7/26/2021 4:26 PM
DATE MODIFIED:	7/26/2021 4:26 PM

3. Which of the following is a centralized directory database that contains user account information and security for the entire group of computers?

a. Active Directory
b. Clients
c. Workgroups
d. RAID

ANSWER: a

FEEDBACK:

a. Correct. Active Directory or AD is a centralized directory database that contains user account information and security for the entire group of computers.
b. Incorrect. A computer making a request from another is called the client.
c. Incorrect. In a workgroup, all the computers are peers and so no computer has control over another computer.
d. Incorrect. RAID or Redundant Array of Independent Disks is used as a backup by servers so that if one hard drive fails, another one automatically takes its place.

POINTS:	1
QUESTION TYPE:	Multiple Choice
HAS VARIABLES:	False
LEARNING OBJECTIVES:	WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
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DATE CREATED:	7/26/2021 4:26 PM
DATE MODIFIED:	7/26/2021 4:26 PM

4. Which of the following statements is applicable for a peer-to-peer network and not for a client-server network model?

a. User accounts and passwords to the networks are all assigned in one place.
b. They are simple to configure and for this reason, they may be used in environments in which time or

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technical expertise is scarce.

c. Problems on the network can be monitored, diagnosed, and fixed from one location.

d. Access to multiple shared resources can be centrally granted to a single user or a group of users.

ANSWER: b

FEEDBACK:

a. Incorrect. This statement is not applicable to a P2P network model because in a P2P network model, each computer controls its own administration, resources, and security.

b. Correct. P2P networks are very simple to configure as they are mostly used for a network that supports fewer than 15 computers.

c. Incorrect. This statement is applicable for a client-server model and not a P2P network.

d. Incorrect. This statement is true for a client-server model.

POINTS: 1

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies

ACCREDITING STANDARDS: WEST.NET+.23.1.2 - Explain the characteristics of network topologies and network types.

TOPICS: Network models

KEYWORDS: Bloom's: Remember

DATE CREATED: 7/26/2021 4:26 PM

DATE MODIFIED: 7/26/2021 4:26 PM

5. Pisces Ltd. is a small logistics firm operating out of Los Angeles. The organization has a small array of seven computers for the functioning of its administration. They have requested a network engineer from Softnet Solutions to suggest why they should opt for a P2P network model instead of a client-server network model. In this scenario, which of the following statements would be the appropriate reason for Pisces Ltd. to opt for a peer-to-peer network model according to you?

a. Peer-to-peer networks are scalable and so they are beneficial.

b. Peer-to-peer networks generally have secured access points preventing unauthorized access.

c. A network operating system is much more expensive than a desktop operating system.

d. A peer-to-peer network model allows network problems to be diagnosed and monitored from a single place.

ANSWER: c

FEEDBACK:

a. Incorrect. P2P networks are not scalable, which means, as a peer-to-peer network grows larger, adding or changing significant elements of the network may be difficult.

b. Incorrect. They are not necessarily secure, meaning that in simple installations, data and other resources shared by network users can be easily discovered and used by unauthorized people.

c. Correct. As Pisces Ltd. is a small logistics firm and since the client-server model is an expensive model when compared to the P2P model, desktop operating system would be beneficial to the firm from that aspect. A network operating system, such as Windows Server 2019, is much more expensive

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than a desktop operating system, such as Windows 10.

d. Incorrect. In a client-server network model, problems on the network can be monitored, diagnosed, and often fixed from one location but not in a peer-to-peer model.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

6. 6. You are a senior programmer for Google Solutions Ltd. and you have been tasked with ensuring that in a scenario where a hard disk fails, the servers must have a backup to fill it in automatically. Which of the following would you apply to solve this issue at hand?

a. AD
b. Hypervisor
c. RAID
d. Workgroup

ANSWER: c
FEEDBACK:

a. Incorrect. The centralized directory database that contains user account information and security for the entire group of computers is known as Active Directory and would not serve the purpose in such a scenario.

b. Incorrect. Hypervisors are software that runs virtualized devices on a cloud platform as a NOS. It won't solve the issue at hand.

c. Correct. RAID or Redundant Array of Independent Disks is used as a backup by servers so that if one hard drive fails, another one automatically takes its place.

d. Incorrect. A workgroup is simply a group of computers connected to each other using the same Ethernet network.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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CompTIA Network Guide to Networks 9th edition West Test Bank

Module 01 - Introduction to Networking

DATE MODIFIED: 7/26/2021 4:26 PM

7. A client wants you to install a network model for his server so that each computer on the network is responsible for controlling access to its resources. Which of the following operating systems will you install in such a situation?

a. Mac
b. Ubuntu Server
c. Red Hat Enterprise
d. Windows Server 2019

ANSWER: a

FEEDBACK:

a. Correct. Mac OS because a peer-to-peer network model is preferred in such a scenario.
b. Incorrect. Ubuntu Server is an example of a client-network model.
c. Incorrect. Red Hat Enterprise is a NOS in a client-network model.
d. Incorrect. Windows Server 2019 is also a NOS in a client-network model.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

8. Which of the following client-server applications use Apache and Nginx?

a. Email services
b. FTP services
c. Web service
d. DNS service

ANSWER: c

FEEDBACK:

a. Incorrect. An example of email services is Microsoft Exchange Server.
b. Incorrect. FileZilla and CuteFTP are examples of applications using the FTP services.
c. Correct. Apache and Nginx are the most commonly used web service applications that run primarily on Linux systems.
d. Incorrect. Google is an example of a public DNS server.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False

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CompTIA Network Guide to Networks 9th edition West Test Bank

Module 01 - Introduction to Networking

LEARNING OBJECTIVES: WEST.NET+.23.1.2 - Identify types of applications and protocols used on a network
ACCREDITING STANDARDS: WEST.NET+.23.1.5 - Explain common ports and protocols, their application, and encrypted alternatives.
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

9. Which of the following statements stands true?

a. FTP servers provide secure encryption for file transfer.
b. HTTP is a secured protocol that provides secure transmission.
c. The DBMS does not support a multiuser environment.
d. An email can be downloaded to the client computer using POP3.

ANSWER: d
FEEDBACK:
a. Incorrect. This statement is incorrect as FTP does not provide encryption and hence is not secure.
b. Incorrect. When layered on top of an encryption protocol such as SSL, HTTP becomes a secured protocol in the form of HTTPS and thus provides secured transmission.
c. Incorrect. This statement is incorrect as DBMS allows users to access and manipulate data in parallel.
d. Correct. Using Post Office Protocol, version 3, the email is typically downloaded to the client computer, post which it can be removed from the server.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.2 - Identify types of applications and protocols used on a network
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

10. Which of the following protocols is used to send an email message to the first server?

a. SMTP
b. POP3
c. IMAP4
d. FTP

ANSWER: a
FEEDBACK:
a. Correct. SMTP is the protocol used to send an email message to the first server, which is sometimes called the SMTP server.

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b. Incorrect. POP3 is used to download the email to the client computer, post which it is typically removed from the server.
c. Incorrect. Using the IMAP4 protocol, the client application manages the email while it remains stored on the server.
d. Incorrect. The FTP protocol is used to transfer files between two computers.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.2 - Identify types of applications and protocols used on a network
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

11. Which of the following DBMS applications would you use if you were to organize data into tables and records?

a. Apache
b. MS Outlook
c. FileZilla
d. Microsoft SQL Server

ANSWER: d
FEEDBACK:
a. Incorrect. Apache is a web server application which primarily runs on Linux systems.
b. Incorrect. MS Outlook is a popular email client application and not a DBMS application.
c. Incorrect. FileZilla is a client-server application that transfers files between two computers using the FTP protocol.
d. Correct. Microsoft SQL Server is a DBMS that serves as a container for massive amounts of data that can be organized into tables and records.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.2 - Identify types of applications and protocols used on a network
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DATE MODIFIED: 7/26/2021 4:26 PM

12. HLP Ltd. has already set up a private web server for its corporate network with Windows as an operating system, and now they have contacted you to make their network remotely accessible to a certain group of

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employees. They have also requested you to ensure that the selected protocol provides secured and encrypted transmissions.

Which of the following protocols would you apply so that the employees can have secured remote access to the computer server?

a. The Telnet protocol
b. RDP
c. The SSH protocol
d. POP3

ANSWER: b

FEEDBACK:

a. Incorrect. The Telnet protocol is a command-line application included in many operating systems, but transmissions in Telnet are not encrypted, and hence they are not secure.
b. Correct. The Remote Desktop Protocol provides secured encrypted transmissions for Windows operating systems and so it should be used in this scenario.
c. Incorrect. Even though SSH protocols provide secure remote access to the networks, these protocols are used for Linux operating systems.
d. Incorrect. POP3 is used to download the email to the client computer. Post that, it is typically removed from the server. It does not provide remote access to the user.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.2 - Identify types of applications and protocols used on a network
ACCREDITING STANDARDS: WEST.NET+.23.1.5 - Explain common ports and protocols, their application, and encrypted alternatives.
TOPICS: Client server applications
KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

13. A client has hired you to help him with a client-server application for Windows so that he is able to transfer files. Which of the following applications will you suggest so that the client can transfer such files between two computers?

a. CuteFTP
b. MySQL
c. Oracle Database
d. Nginx

ANSWER: a

FEEDBACK:

a. Correct. CuteFTP is a client-server application that transfers files between two computers using the FTP protocol and so it should be ideal in this scenario.

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b. Incorrect. MySQL Server is a DBMS that serves as container for massive amounts of data that can be organized into tables and records.
c. Incorrect. Oracle Database is a database management software and hence won't serve this purpose.
d. Incorrect. Nginx is the most commonly used web service application that runs primarily on Linux systems.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.2 - Identify types of applications and protocols used on a network
ACCREDITING STANDARDS: WEST.NET+.23.1.5 - Explain common ports and protocols, their application, and encrypted alternatives.
TOPICS: Client server applications
KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

14. Harry, a supporting technician at Urban Solutions, is tasked with sending a technical requirement document using the email service to Hill Industries Ltd. However, he also must ensure that there are no trails left behind on the server. What should Harry do in such a situation?

a. He should use POP3 to deliver the message.
b. He should use IMAP4 to deliver the message.
c. He should use the SSH protocol to deliver the message.
d. He should use the RDP protocol to deliver the message.

ANSWER: a
FEEDBACK:

a. Correct. POP3 (Post Office Protocol) can be used to deliver a message, which can be downloaded to the client computer and typically removed from the server.
b. Incorrect. Even though IMAP4 (Inter Message Access Protocol) can be used to deliver the message to the client, it still remains stored on the server. Hence, it won't serve the purpose in this particular scenario.
c. Incorrect. The SSH (Secure Shell) protocol is used in Linux systems to provide encrypted channels between two computers while providing remote access.
d. Incorrect. The RDP (Remote Desktop Protocol) is used by Windows operating systems to provide secure encrypted transmissions while providing remote access between two computers.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.2 - Identify types of applications and protocols used on a network
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CompTIA Network Guide to Networks 9th edition West Test Bank

Module 01 - Introduction to Networking

DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

15. The University of Kingston has hired you to install a private area network for its campus so that students and teachers from various departments can exchange data among themselves. Which of the following network models would be best suited for such an institution?

a. WAN
b. BAN
c. CAN
d. PAN

ANSWER: c
FEEDBACK:
a. Incorrect. A wide area network is more feasible when you need a wider geographical area.
b. Incorrect. A body area network is used for personal fitness devices and hence won't serve the purpose.
c. Correct. A campus area network is a group of connected LANs that are used in a limited geographical area, and so it would fit the requirement.
d. Incorrect. A PAN (personal area network) is a much smaller network type, which is a network of personal devices, and so would not be ideal for this purpose.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
ACCREDITING STANDARDS: WEST.NET+.23.2.1 - Compare and contrast various devices, their features, and their appropriate placement on the network.
TOPICS: Network hardware
KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

16. Jungle Travels Ltd. has established a consumer forum office in Minneapolis, which consists of five computers and a couple of printers and scanners, all of which are connected by a single hub. Which of the following network topologies would you have applied in such a scenario?

a. A star topology
b. A mesh topology
c. A ring topology
d. A bus topology

ANSWER: a
FEEDBACK:
a. Correct. As all the devices are interconnected through a central hub, a star topology would be applied in this case.
b. Incorrect. In a mesh topology, the nodes are connected to each other via a

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dedicated link and not through a single hub.

c. Incorrect. A ring topology is rarely used today, primarily because of its slow speed and its vulnerability to failure. If one node fails, the entire ring fails.

d. Incorrect. In a bus topology, all the devices are connected through a single cable instead of a central hub.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

17. Which of the following terms is also referred to as a "network of networks"?

a. Hub
b. Backbone
c. Spoke
d. Network interface card

ANSWER: b
FEEDBACK:

a. Incorrect. A hub is the central switch that could connect to multiple peripheral switches that each connect to computers in their areas.

b. Correct. A backbone is a central conduit that connects the segments of a network and is sometimes referred to as a "network of networks."

c. Incorrect. The peripheral switches that each connect to computers in their areas using the hub are known as a spoke.

d. Incorrect. A network port, whether embedded on a motherboard or attached to an expansion slot, is typically called NICs.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

18. Which of the following network devices does not fall under the category of "end devices" as certified by

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Module 01 - Introduction to Networking

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a. Smartphone
b. Network printer
c. Router
d. File server

ANSWER: c

FEEDBACK:

a. Incorrect. A smartphone is a host device and does fall under the category of end devices.
b. Incorrect. A network printer is a host device and does fall under the category of end devices.
c. Correct. Routers are an intermediary device because they enable connections on the network but do not, themselves, provide applications or data resources for networked devices to access.
d. Incorrect. A file server is a host device and does fall under the category of end devices.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
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19. Which of the following consists of high capacity data storage devices in a distinctly defined network segment?

a. MAN
b. PAN
c. SAN
d. WLAN

ANSWER: c

FEEDBACK:

a. Incorrect. A metropolitan area network (MAN) is a computer network that interconnects users with computer resources in a geographic region the size of a metropolitan area.
b. Incorrect. A PAN is a much smaller network type, which is a network of personal devices, and so would not be ideal for this purpose.
c. Correct. A SAN consists of high capacity data storage devices in a distinctly defined network segment.
d. Incorrect. A wireless local area network consists of two or more devices connected wirelessly.

POINTS: 1

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Module 01 - Introduction to Networking

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20. A small office providing television services in Chicago has contacted Mark, a network administrator, to set up a network connection for their operations. The total strength of devices will not exceed 10, and so Mark decides that a LAN connection is all that is required for their functionality. Mark, however, wants to ensure that the devices are connected centrally, and for this purpose he plans on installing a central switch. Analyze which physical topology is best suited for this purpose.

a. A star topology
b. A mesh topology
c. A ring topology
d. A bus topology

ANSWER: a

FEEDBACK:

a. Correct. As a switch will receive the incoming data from one of its ports and redirect it to another port or multiple ports that will send the data to its intended destination(s) within the local network, a star topology should be used because all devices will be connected to that one central switch.
b. Incorrect. A mesh topology should not be used here as in a mesh topology all the nodes are interconnected with each other and are generally expensive.
c. Incorrect. In a ring topology, the message passing is unidirectional as each computer is connected to exactly two other computers to form the ring and so it might not be ideal in such a scenario.
d. Incorrect. A bus topology is the simplest kind of topology in which a common bus is used for communication in the network. This is not preferred.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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CompTIA Network Guide to Networks 9th edition West Test Bank

Module 01 - Introduction to Networking

21. Zero Travels, a transport company, has just set up two offices within a range of eight kilometers apart from each other for smoother transactions. Lee, a senior technician at Informatics Ltd., has been hired to set up a network connection between these two branches. Which of the following network models should Lee set up keeping in mind that budget is also a factor to be considered?

a. WAN
b. MAN
c. PAN
d. CAN

ANSWER: d

FEEDBACK:

a. Incorrect. A WAN is preferred when you wish to spread over a large geographical area.
b. Incorrect. Even though a MAN can be used for a radius spreading from 2 to 100 kilometers, it is quite an expensive process and so in this scenario, a MAN should not be implemented.
c. Incorrect. A PAN is not an option in this scenario as it is mostly used for personal devices.
d. Correct. Lee should implement a campus area network (CAN) for them because it ideally covers 5-10 kilometers and is also less expensive than a MAN.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
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DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

22. Sundareshan has been working as a senior technician at Reifenhauser Corporation. The managing director has requested Sundareshan to establish a similar network connection at his personal property. Which of the following categories of routers should Sundareshan prefer in such a scenario?

a. An industrial-grade router
b. A consumer-grade router
c. A switch
d. A combo device

ANSWER: d

FEEDBACK:

a. Incorrect. Even though an industrial-grade router can be used in such a scenario, such routers are generally not preferred for home usage.
b. Incorrect. A consumer-grade router is generally preferred for a SOHO network, which typically has fewer than 10 computers.

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c. Incorrect. Switches are primarily used to connect various devices in a network using LAN.

d. Correct. Home networks often use a combo device, which functions as both a switch and a router, and so in this case he should opt for a combo device.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.3 - Describe various networking hardware devices and the most common physical topologies
ACCREDITING STANDARDS: WEST.NET+.23.2.1 - Compare and contrast various devices, their features, and their appropriate placement on the network.
TOPICS: Network hardware
KEYWORDS: Bloom's: Analyze
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

23. Which of the following will guide an individual to properly handle substances such as chemical solvents and how to dispose of them?

a. OSHA
b. PPE
c. Fire suppression system
d. SDS

ANSWER: d
FEEDBACK:

a. Incorrect. The Occupational Safety and Health Administration is a federal agency charged with safety and health in the workplace.

b. Incorrect. PPE stands for personal protective equipment and does not provide any guidance.

c. Incorrect. A company is likely to have at least one fire suppression system in its data center that provides fire protection.

d. Correct. An SDS (safety data sheet), formerly called an MSDS (material safety data sheet), explains how to properly handle substances such as chemical solvents and how to dispose of them.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.5 - Explain best practices for safety when working with networks and computers
ACCREDITING STANDARDS: WEST.NET+.23.3.3 - Explain high availability and disaster recovery concepts and summarize which is the best solution.
TOPICS: Safety procedures and policies
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

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24. What should be the ideal procedure after implementing the solution to a network troubleshooting problem?

a. Document findings, actions, and outcomes.
b. Test the theory to determine the cause.
c. Verify functionality and implement preventive measures.
d. Establish a theory of probable cause.

ANSWER: c

FEEDBACK:

a. Incorrect. This is the last stage of network troubleshooting methodology wherein the organization expects that the contact information of the person who originated the call for help has been documented.
b. Incorrect. After we have established a theory of probable cause, we should test our theory in practice so that it will indeed solve the problem before implementing it.
c. Correct. It is always considered to be a standard practice to return a few days later to ensure that everything is functioning smoothly and also to identify whether one needs any more preventive maintenance.
d. Incorrect. This is an earlier stage of troubleshooting wherein you identify the problem and then come up with probable causes for such an occurrence.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.1 - Explain the network troubleshooting methodology.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

25. What is a collection of accumulated insights and solutions to problems encountered in a particular network known as?

a. Tracking system
b. Knowledge base
c. Change management
d. SDS

ANSWER: b

FEEDBACK:

a. Incorrect. A tracking system is used to document problems and their solutions.
b. Correct. A knowledge base is a collection of accumulated insights and solutions to problems encountered in a particular network.
c. Incorrect. Change management consists of carefully defined processes to evaluate the need for a change.
d. Incorrect. An SDS (safety data sheet) explains how to properly handle substances such as chemical solvents and how to dispose of them.

POINTS: 1

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Module 01 - Introduction to Networking

QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.1 - Explain the network troubleshooting methodology.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

26. Which of the following is the third step in a network troubleshooting methodology?

a. Establish a plan for solving the problem.
b. Identify the problem and its symptoms.
c. Establish a theory of probable cause.
d. Test your theory to determine the cause.

ANSWER: d
FEEDBACK:
a. Incorrect. This is the fourth step to be followed after testing the theory to determine the cause.
b. Incorrect. The first step to any problem is to identify the problem and to know its symptoms.
c. Incorrect. As one identifies a problem, the second step is to make a best guess about the source of the problem.
d. Correct. The third step in a network troubleshooting methodology is to test our theory to determine the cause to assure oneself that it will indeed solve the problem before going ahead with implementation.
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.1 - Explain the network troubleshooting methodology.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

27. What is help desk software used for?

a. To document problems and their resolutions
b. To accumulate insights and solutions to problems encountered on a particular network
c. To properly handle substances such as chemical solvents
d. To protect the computer from an ESD charge

ANSWER: a

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Module 01 - Introduction to Networking

FEEDBACK:

a. Correct. Most organizations use a call tracking system, also known as help desk software, to document problems and their resolutions.
b. Incorrect. A knowledge base is used to accumulate insights and solutions to problems encountered on a particular network.
c. Incorrect. A safety data sheet is used for such purposes.
d. Incorrect. An ESD strap is used for this purpose.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.1 - Explain the network troubleshooting methodology.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

28. You are the new IT admin of Sherpa Logistics. The company's in-house application is showing some aberrant behaviors and your team lead has asked you to handle the situation in his absence. What would be your first point of action in such a scenario?

a. Identify why the application is behaving in this manner and the symptoms behind such behavior.
b. Try to establish a theory by yourself regarding the cause by following the OSI model.
c. Escalate the problem.
d. Document the data regarding the person who initially alerted you regarding the anomaly.

ANSWER: a
FEEDBACK:

a. Correct. As you gather information about the problem, you'll need to identify the symptoms, question the user, find out what has recently changed, and determine the scope of the problem. This should be your first point of action.
b. Incorrect. This is normally followed after identifying the problem and its symptoms. This is where you identify a theory of probable cause.
c. Incorrect. If the problem is a complex one, you might need to escalate the problem to someone with access to more technical resources or with more authority to test or implement a solution, but this will still not be the first step.
d. Incorrect. Documentation is generally done after the problem at hand has been solved.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.1 - Explain the network troubleshooting methodology.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM

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Module 01 - Introduction to Networking

DATE MODIFIED: 7/26/2021 4:26 PM

29. You have successfully implemented a solution to a bug reported by one of the employees of your organization. You also want to ensure that the process has been well documented in the knowledge base of the organization. Which of the following information is not relevant in such a scenario when you put the data into the record books?

a. The contact name of the person reporting the issue
b. The symptoms of the problem
c. The name of the technician who handled the problem
d. The total number of computers functioning in the organization

ANSWER: d

FEEDBACK:

a. Incorrect. An organization expects you to record the name and the department of the person reporting the issue.
b. Incorrect. The symptoms of the problem are a necessity because they will provide useful insights to future problems.
c. Incorrect. It is considered standard practice to note the name of the technician who solved the issue at hand.
d. Correct. A knowledge base does not require the needed information as it will provide no insight to the solution of the problem.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.1 - Explain the network troubleshooting methodology.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

30. PepsiCo Ltd. has been having a lot of bugs in their network and so they have hired Suleiman to analyze the issue at hand. On inspection, he has come up with the solution that certain changes to the network must be done in order to make it functional.

Which of the following statements should Suleiman consider while considering a change in a network?

a. Change management procedures should consist of preparing a backup plan as well.
b. Change management procedures do not evaluate the cost of change of a plan.
c. Changes to a network can be done without keeping in view the effect of the change on its users and applications.
d. Changes to a network should be done when there are maximum users on the network.

ANSWER: a

FEEDBACK:

a. Correct. Change management consists of a carefully defined process to evaluate and consider a backup plan if the change does not work as

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expected.

b. Incorrect. Change management procedures, on the contrary, evaluate the cost of change of a plan and the need of a change.

c. Incorrect. Changes to a network have the potential for disrupting a lot of people's work and so before implementing a fix, one should consider the scope of the change and especially how it will affect users, their applications, and their data.

d. Incorrect. Unless the problem poses an emergency, one should try to make their changes when there are the least number of users on the network.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.1 - Explain the network troubleshooting methodology.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Analyze
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

31. You are a freelance software engineer who has been hired to troubleshoot an error with the antivirus software of a particular computer of an employee where he gets an invalid password message. Which of the following methods will you use in such a scenario?

a. Use a bottom-to-top OSI layers approach
b. Use a top-to-bottom OSI layers approach
c. Escalate the problem
d. Check the change management policies of the organization

ANSWER: b
FEEDBACK:

a. Incorrect. Troubleshooters generally follow the bottom-to-top OSI model by first suspecting and eliminating failed hardware as the cause. Here, the issue is software related.

b. Correct. Here, it makes more sense to follow the OSI model top-to-bottom as it involves software-related issues, beginning at the application layer, and suspect the user has forgotten his or her password.

c. Incorrect. Escalation is normally done when the problem is complex in nature.

d. Incorrect. This is a very simple resolution that does not affect other users. In other situations, your plan might involve informing coworkers of what is about to happen or possibly filing a request for formal change management.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.5 - Given a scenario, troubleshoot general networking issues.
TOPICS: Troubleshooting network problems

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Module 01 - Introduction to Networking

KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

32. What should you do once you have tested your theory to determine the cause of the problem at hand?

Establish a plan for resolving the problem.
b. Implement the solution or escalate the problem.
c. Verify the functionality and implement preventive measures.
d. Document findings, actions, and outcomes.

Analysis:

a. Correct. Before you implement a fix, one should consider the scope of your change and especially how it will affect users, their applications, and their data.
b. Incorrect. Before implementing a solution, one should establish a plan of how the implementation will affect the users.
c. Incorrect. These preventive measures are to be followed post implementation.
d. Incorrect. Call tracking systems to document problems and resolutions are the final stages in such a scenario.

ANSWER: d
POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.5 - Given a scenario, troubleshoot general networking issues.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

33. JK Group of Industries is planning a complete revamp of the office infrastructure, and so it has hired Infrared Solutions to upgrade its network connections. It has also requested Infrared Solutions to ensure that this upgrade should not affect the day-to-day functionality within the office premises. Analyze what would be a proper option to carry out this upgrade.

a. Establish a plan for resolving the problem.
b. Roll out changes in stages.
c. Document findings, actions, and outcomes.
d. Verify functionality and implement preventive measures.

ANSWER: b
FEEDBACK:

a. Incorrect. This is a decision that has to be made after consulting the change management. In this scenario, as the upgrade is already a company-decided policy, there is no need as such.

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b. Correct. Since JK Group of Industries has requested Infrared Solutions to ensure that there is no holdup in the day-to-day functionality, it is best that the changes are rolled out gradually so that there is minimal impact.
c. Incorrect. Documentation is a process that has to be implemented once the entire process has been completed. It has to be followed at a later stage.
d. Incorrect. It is important to verify functionality and implement preventive measures but that takes place once the changes are implemented in the system, which has not yet occurred in this scenario.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.6 - Describe the seven-step troubleshooting model for troubleshooting network problems
ACCREDITING STANDARDS: WEST.NET+.23.5.5 - Given a scenario, troubleshoot general networking issues.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Analyze
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

34. What other technical name or PDU can be used to represent the session presentation and application layer?

a. L4PDU
b. L7PDU
c. L3PDU
d. L2PDU

ANSWER: b
FEEDBACK:
a. Incorrect. L4PDU is used to describe the transport layer.
b. Correct. L7PDU is a combination of application, presentation, and session layers.
c. Incorrect. L3PDU is also known as the network layer.
d. Incorrect. L2PDU is also known as the data link layer.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.4 - Describe the seven layers of the OSI model
ACCREDITING STANDARDS: WEST.NET+.23.1.1 - Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

35. What is the data passed between utility programs or applications and the operating system known as?

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Module 01 - Introduction to Networking

a. Host
b. Payload
c. Firmware
d. Ethernet

ANSWER: b

FEEDBACK:

a. Incorrect. The two end-system computers that initiate sending and receiving data are called hosts.
b. Correct. Data that is passed between applications or utility programs and the operating system is called a payload.
c. Incorrect. The term "firmware" refers to programs embedded into hardware devices.
d. Incorrect. Ethernet is a data link layer protocol. It is a family of wired computer networking technologies commonly used in LAN.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.4 - Describe the seven layers of the OSI model
ACCREDITING STANDARDS: WEST.NET+.23.1.1 - Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
TOPICS: Troubleshooting network problems
KEYWORDS: Bloom's: Remember
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

36. You are a network engineer at Star Fisheries Ltd., Chicago. They want you to send an encrypted email to their branch office at Michigan. In doing so, which of the OSI layers would you apply?

a. Presentation layer
b. Transport layer
c. Data link layer
d. Physical layer

ANSWER: a

FEEDBACK:

a. Correct. In the OSI model, the presentation layer is responsible for reformatting, compressing, and/or encrypting data in a way that the application on the receiving end can read.
b. Incorrect. The transport layer is responsible for transporting application layer payloads from one application to another.
c. Incorrect. The data link layer is responsible for interfacing with the physical hardware on the local network.
d. Incorrect. The physical layer is responsible for sending bits via a wired or wireless transmission.

POINTS: 1
QUESTION TYPE: Multiple Choice

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Module 01 - Introduction to Networking

HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.4 - Describe the seven layers of the OSI model
ACCREDITING STANDARDS: WEST.NET+.23.1.1 - Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
TOPICS: The seven-layer OSI model
KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

37. Kyle is a property consultant, and he has hired you as a programmer to make an application that sends data regarding property sites to his client's base. He has also asked you to ensure that the application should check whether the data has been received and if not, it should resend the data. Which of the following protocols would you apply in such a scenario?

a. Internet Message Access Protocol
b. Simple Network Management Protocol
c. Transmission Control Protocol
d. User Datagram Protocol

ANSWER: c
FEEDBACK:
a. Incorrect. Internet Message Access Protocol (IMAP) is a standard protocol for accessing email on a remote server from a local client.
b. Incorrect. SNMP is used in a client-server application to send an email message to the first server.
c. Correct. TCP makes a connection with the end host, checks whether the data is received, and resends it if it is not. It guarantees delivery.
d. Incorrect. UDP does not guarantee delivery because it doesn't maintain a connection to check whether data is received.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.1 - Distinguish between peer-to-peer and client-server networks
ACCREDITING STANDARDS: WEST.NET+.23.1.1 - Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
TOPICS: The seven-layer OSI model
KEYWORDS: Bloom's: Apply
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

38. White Heavens Entertainment Ltd. has set up a new website for informing people in detail about events that are being planned across the city of Los Angeles. However, when a user tries to gain access to its website to purchase tickets, there seems to be an IP error as a result of which the site crashes. Analyze which of the layers of the OSI model must be checked to fix this error.

a. Presentation layer

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b. Network layer
c. Transport layer
d. Data link layer

ANSWER: b

FEEDBACK:

a. Incorrect. In the OSI layer, the presentation layer is mostly responsible for reformatting, compressing, and encrypting data in a way that the application on the receiving end can read.
b. Correct. As there is an issue with the IP address, it must imply that there is some sort of error with the IP protocol as a result of which the address might not be uniquely identified across multiple networks. The network layer in the OSI model is also known as the Internet layer, and it is responsible for moving messages from one node to the next.
c. Incorrect. The transport layer is responsible for transferring application layer payloads from one application to another which will not solve the bug in this case.
d. Incorrect. The data link layer offers the functional and procedural means to transfer data between network entities.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.4 - Describe the seven layers of the OSI model
ACCREDITING STANDARDS: WEST.NET+.23.1.1 - Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
TOPICS: The seven-layer OSI model
KEYWORDS: Bloom's: Analyze
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

39. Xhang Pho, a senior network engineer, has been tasked with developing an application to channel live music festivals across the world with the help of the web. Given such a situation, which of the following protocols should he opt for?

a. UDP
b. TCP
c. SNMP
d. IMAP4

ANSWER: a

FEEDBACK:

a. Correct. User datagram protocol is ideal for this scenario because it is ideally used for broadcasting, such as streaming video or audio over the web, where guaranteed delivery is not as important as fast transmission.
b. Incorrect. Even though TCP can be used, it generally takes more time as it guarantees delivery. Hence, it won't serve the purpose in this case.
c. Incorrect. An SNMP will help to gather information about the network traffic and alert network administrators about adverse conditions that need attention.
d. Incorrect. IMAP4 is an application-level protocol that is used to receive emails from the mail server.

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Module 01 - Introduction to Networking

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.1 - Distinguish between peer-to-peer and client-server networks
ACCREDITING STANDARDS: WEST.NET+.23.1.1 - Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
TOPICS: The seven-layer OSI model
KEYWORDS: Bloom's: Analyze
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

40. James, a supporting technician, is trying to resolve an issue pertaining to the router. On inspecting the issue, he figured that the router was unable to move packages from one node to another. As a resolution to this problem, he intends to follow the OSI model for troubleshooting. What layer of the OSI model should he inspect to understand the issue relating to the router?

a. The physical layer
b. The session layer
c. The transport layer
d. The network layer

ANSWER: d

FEEDBACK:

a. Incorrect. The physical layer is primarily responsible for sending bits via wired or wireless transmissions. Checking the physical layer in this scenario would not have solved the issue.
b. Incorrect. The session layer of the OSI model describes how data between applications is synced and recovered if messages don't arrive intact at the receiving application. Here, the router is involved and not any applications, so this too would not have solved the issue.
c. Incorrect. The transport layer is responsible for transporting application layer payloads from one application to another. Again, the question clearly states that there is an issue with the router and not any application.
d. Correct. The network layer is the layer where routers typically function and since the router is unable to move messages, checking the ICMP and ARP protocols should help.

POINTS: 1
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
LEARNING OBJECTIVES: WEST.NET+.23.1.4 - Describe the seven layers of the OSI model
ACCREDITING STANDARDS: WEST.NET+.23.1.1 - Compare and contrast the Open Systems Interconnection (OSI) model layers and encapsulation concepts.
TOPICS: The seven-layer OSI model
KEYWORDS: Bloom's: Analyze
DATE CREATED: 7/26/2021 4:26 PM
DATE MODIFIED: 7/26/2021 4:26 PM

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Module 01 - Introduction to Networking

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