

Exam

Question 1 of 50

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

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

Question 2 of 50

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

- ☐ Workgroup
- ☐ Peer-to-peer
- ☐ Domain
- ☐ Directory
- ☐ Client/server

Question 3 of 50

Which of the following is a rating of the amount of data that can be sent over a network in a period of time?

- ☐ Bandwidth
- ☐ Jitter
- ☐ Broadband
- ☐ Latency

Question 4 of 50

Which of the following terms describes a group of computers and users that utilize centralized resources, administration, and security settings? (Select two.)

- ☐ Domain
- ☐ Local area network
- ☐ Peer-to-peer
- ☐ Workgroup

☐ Directory

Question 5 of 50

Which of the following are advantages of using a domain to manage a network? (Select two.)

- ☐ Centralized administration
- ☐ Little or no configuration
- ☐ Scalability
- ☐ Decentralized administration
- ☐ Peer-to-peer sharing of network resources

Question 6 of 50

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

- ☐ Messages travel from one device to the next until they reach the destination device.
- ☐ Messages are sent to all devices connected to 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.

Question 7 of 50

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

- ☐ 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 directly to the correct destination device.
- ☐ Messages are sent to a central device which then forwards the message to the destination device.

Question 8 of 50

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

- ☐ Bus
- ☐ Ring
- ☐ Star
- ☐ Mesh

Question 9 of 50

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?

- ☐ Bus
- ☐ Star
- ☐ Ring
- ☐ Mesh
- ☐ Tree

Question 10 of 50

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?

- ☐ Mesh
- ☐ Star
- ☐ Bus
- ☐ Ring

Question 11 of 50

What type of network describes a workgroup?

- ☐ Peer-to-peer network
- ☐ Client-based network
- ☐ Server-based network
- ☐ Ad-hock network

Question 12 of 50

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.

Drag

Metropolitan Area Network (MAN)

Wireless Local Area Network (WLAN)

Wide Area Network (WAN)

Personal Area Network (PAN)

devices, such as a notebook computer, a wireless headset, a wireless printer, and a smartphone

Local Area Network (LAN)

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

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

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

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

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

Question 13 of 50

What device is used to create a physical star topology?

- ☐ Switch
- ☐ Bridge
- ☐ Router
- ☐ Repeater

Question 14 of 50

Which network component connects a device to the transmission media and allows it to send and receive messages?

- ☐ Bridge
- ☐ Network interface card

- ☐ Switch
- ☐ Protocol

Question 15 of 50

Which of the following statements accurately describes how a modem works? (Select two.)

- ☐ It communicates over a telephone network using digital signals.
- ☐ It modulates digital data from the PC into analog data and transmits it on a telephone network.
- ☐ It modulates digital data from a telephone network into analog data that a PC can use.
- ☐ It transmits digital signals over ordinary telephone copper wiring at a rate up to 128 Kbps.
- ☐ It demodulates analog data from a telephone network into digital PC data.
- ☐ It demodulates analog PC data into digital data that can be transmitted through a telephone network.

Question 16 of 50

Which of the following is a valid MAC address?

- ☐ 192.168.12.15
- ☐ 255.255.255.0
- ☐ 73-99-12-61-15
- ☐ C0-34-FF-15-01-8E
- ☐ 34-9A-86-1G-B3-24
- ☐ 83-5A-5B-0B-31-55-F1

Question 17 of 50

A host wants to send a message to another host with the IP address 115.99.80.157. IP does not know the hardware address of the destination device. Which protocol can be used to discover the MAC address?

- ☐ BOOTP
- ☐ DHCP
- ☐ ARP
- ☐ DNS

Question 18 of 50

Which of the following LAN devices receives a signal on one port, and forwards that signal only to the port where the destination device is connected?

- ☐ Hub
- ☐ Switch
- ☐ Router
- ☐ Network adapter

Question 19 of 50

Which of the following best describes how a switch functions?

- ☐ It connects multiple cable segments (or devices), and forwards frames to the appropriate segment.
- ☐ It connects multiple cable segments (or devices), and broadcasts frames to all of its ports.
- ☐ It connects multiple segments of different architectures. It translates frames, and forwards them to the appropriate segment.
- ☐ It connects multiple segments of different architectures. It translates frames, and broadcasts them to all of its ports.

Question 20 of 50

Which of the following hardware devices regenerates a signal out all connected ports without examining the frame or packet contents?

- ☐ Router
- ☐ Bridge
- ☐ Switch
- ☐ Gateway
- ☐ Hub

Question 21 of 50

What type of cable configuration is shown here and what is it used for?



- ☐ Crossover cable configuration. Used to connect computers directly to one another for networking.

- ☐ Patch (or straight-through) cable configuration. Used to connect computers to network devices, such as switches and hubs.
- ☐ RJ-11 configuration. Used to connect wireless routers to phone line connections.
- ☐ Rollover cable configuration. Used to connect computers to routers for console management.

Question 22 of 50

Which kind of connector do you use to connect a modem to a standard telephone line?

- ☐ RJ-11
- ☐ RJ-45
- ☐ RG-58
- ☐ F-type

Question 23 of 50

Which connector is used with unshielded twisted pair (UTP) cable?

- ☐ RJ-45
- ☐ BNC
- ☐ AUI
- ☐ DIX

Question 24 of 50

What type of cabling can be used for an Ethernet 100Base-T (100 Mbps) network? (Select two.)

- ☐ Category 5 UTP
- ☐ Category 3 UTP
- ☐ RG-8 coaxial cable
- ☐ Category 5e UTP
- ☐ RG-58 coaxial cable

Question 25 of 50

Which of the following are advantages of using fiber optic cabling for a network, as opposed to other types of cabling? (Select two.)

- ☐ Greater cable distances without a repeater
- ☐ Immunity to electromagnetic interference

- ☐ Lower installation cost
- ☐ Faster installation
- ☐ Increased flexibility

Question 26 of 50

What is a major benefit of STP over UTP?

- ☐ Greater resistance to interference
- ☐ Lower cost
- ☐ Safer for installations in overhead ceiling spaces
- ☐ Ability to install longer cable lengths

Question 27 of 50

You are installing networking cable in the air space between the ceiling and the roof of a building. Which type of cabling should you use?

- ☐ Plenum
- ☐ PVC
- ☐ STP
- ☐ Multi-mode fiber

Question 28 of 50

Which network type uses light pulses to transmit data?

- ☐ Satellite
- ☐ Fiber optic
- ☐ Wireless
- ☐ Cable

Question 29 of 50

You are using a crimper to attach an RJ-45 connector to a Cat 6 UTP cable. You need to use the T568A standard to connect the individual wires to the connector. Which wire should be connected to pin 1?

- ☐ Green with white
- ☐ Green

- ☐ Orange with white
- ☐ Blue

Question 30 of 50

Your network follows the 1000Base-T specifications for Gigabit Ethernet. What is the maximum cable segment length allowed?

- ☐ 100 meters
- ☐ 412 meters
- ☐ 500 meters
- ☐ 1,000 meters
- ☐ 2,000 meters

Question 31 of 50

Which of the following is true of a network using the 1000Base-T standard? (Select two.)

- ☐ The network uses copper UTP cables
- ☐ The network uses fiber optic cables
- ☐ The network operates at one gigabit per second
- ☐ The network operates at ten gigabits per second
- ☐ The network operates at one kilobit per second

Question 32 of 50

A medical center wants to upgrade their network backbone to 10 Gigabit Ethernet (10 Gbps) so they can perform daily backups of large amounts of data to the secure on-site storage area network (SAN) without bogging down the network. Some of the backbone segments will have to reach between buildings that are close to 300 meters apart. Which of the following cable types will support 10 Gigabit Ethernet at the necessary segments lengths while keeping costs as low as possible?

- ☐ Multimode fiber optic
- ☐ Single-mode fiber optic
- ☐ Twisted pair Category 6
- ☐ Twisted pair Category 7

Question 33 of 50

Which of the following is a valid IP address? (Select two.)

- ☐ 256.0.0.1
- ☐ 10.384.0.3
- ☐ 192.168.1.512
- ☐ 172.16.1.26
- ☐ 2.2.2.2
- ☐ 1.254.1.1024
- ☐ 254.7.1.417

Question 34 of 50

Which of the following are not valid IP addresses? (Select three.)

- ☐ 257.0.122.55
- ☐ 122.0.0.0
- ☐ 1.55.254.3
- ☐ 145.8.260.7
- ☐ 132.64.32.8
- ☐ 116.0.0.116
- ☐ 45.22.156.256

Question 35 of 50

Which of the following best describes an IP address class?

- ☐ The class is the version of IP addressing standard used by the address.
- ☐ The class defines the default network address portion of the IP address.
- ☐ The class defines the type of device that the address is assigned to (i.e. server, printer, workstation).
- ☐ The class refers to the range of IP addresses that a DHCP server has been authorized to assign.

Question 36 of 50

Which of the following IP addresses are Class C addresses? (Select three.)

- ☐ 192.15.5.55
- ☐ 222.55.0.0

- ☐ 223.16.5.0
- ☐ 240.0.0.0
- ☐ 189.189.5.2
- ☐ 125.166.11.0

Question 37 of 50

Which of the following IP addresses are Class B addresses? (Select three.)

- ☐ 129.0.0.0
- ☐ 115.33.0.0
- ☐ 64.2.2.64
- ☐ 190.65.2.0
- ☐ 224.15.55.2
- ☐ 132.12.0.0
- ☐ 195.155.0.0

Question 38 of 50

Which of the following IP addresses have a default subnet mask of 255.255.0.0? (Select three.)

- ☐ 191.168.2.15
- ☐ 1.6.45.254
- ☐ 123.254.19.6
- ☐ 228.62.18.6
- ☐ 129.0.0.1
- ☐ 168.16.5.1

Question 39 of 50

Which of the following IP address ranges is reserved for Automatic Private IP Addressing?

- ☐ 192.168.0.0 - 192.168.255.254
- ☐ 169.168.0.1 - 169.168.255.255
- ☐ 192.168.0.1 - 192.168.254.255

- ☐ 169.254.0.1 - 169.254.255.254
- ☐ 169.192.0.0 - 169.192.254.255

Question 40 of 50

You have a small home network that uses 192.168.1.0 with the default subnet mask for the network address. The default gateway address is 192.168.1.254, and the router is providing DHCP on the network. The Wrk2 computer has been assigned the IP address of 192.168.1.55. Which of the following is considered the loopback address for the Wrk2 computer?

- ☐ 127.0.0.1
- ☐ 192.168.1.0
- ☐ 192.168.1.255
- ☐ 192.168.1.55
- ☐ 192.168.1.254

Question 41 of 50

You want to use your Windows workstation to browse the web sites on the Internet. You use a broadband DSL connection to access the Internet. Which network protocol must be installed on your workstation to do this?

- ☐ IP
- ☐ SLIP
- ☐ PPP
- ☐ IPX/SPX
- ☐ NetBIOS

Question 42 of 50

Which protocols are used on the Internet to transmit Web pages from Web servers to Web browsers running on client workstations? (Select two.)

- ☐ HTTP
- ☐ HTML
- ☐ SMTP
- ☐ NNTP
- ☐ HTTPS
- ☐ XML

Question 43 of 50

You want to allow your users to download files from a server running the IP protocol. You want to protect access to the files by requiring user authentication to access specific directories on the server. Which IP protocol should you implement to provide this capability?

- ☐ SNMP
- ☐ FTP
- ☐ SMTP
- ☐ TFTP
- ☐ LDAP
- ☐ SSH

Question 44 of 50

What protocol is used to send e-mail messages from a mail client to a mail server?

- ☐ SMTP
- ☐ FTP
- ☐ SNMP
- ☐ POP3
- ☐ IMAP

Question 45 of 50

Which of the following protocols is used by an e-mail client to retrieve messages from an e-mail server and gives users the option to keep mail messages on the server?

- ☐ IMAP
- ☐ SMTP
- ☐ POP3
- ☐ NTP

Question 46 of 50

You want to implement name resolution on the Linux workstations in your company. Which protocol will you use to do this?

- ☐ LMHOSTS file
- ☐ WINS

- ☐ DNS
- ☐ NTP
- ☐ SMTP

Question 47 of 50

You are a software developer and you are creating a multimedia streaming application. Data will be streamed from your streaming server to streaming clients over IP networks. Which transport protocol should your application use to send data between the clients and the server?

- ☐ TCP
- ☐ UDP
- ☐ SNMP
- ☐ ICMP

Question 48 of 50

Which of the following protocols carry phone calls over an IP-based network?

- ☐ VoIP
- ☐ TCP
- ☐ RTSP
- ☐ HTTP

Question 49 of 50

You are setting up a small network in your office with one Windows server and 50 Windows workstations. You want to spend as little time as possible configuring the workstations with IP addressing information. What should you do?

- ☐ Install the DHCP service on your server.
- ☐ Assign each user an IP address and instruct the user to enter the IP address in his or her computer.
- ☐ Install the WINS service on your server.
- ☐ Install the DHCP service on each workstation.

Question 50 of 50

Which TCP/IP configuration parameter identifies the router that is used to reach hosts on remote networks?

- ☐ Default gateway
- ☐ Subnet mask

- ☐ WINS server address
- ☐ DNS server address
- ☐ Alternate IP address
- ☐ Host name