Exam: INWT120 - Midterm

Question 1 of 125

You have implemented a network where each device provides all other devices on the network with access to shared files.

What type of network do you have?

- ◯ Peer-to-peer
- ◯ Client-server
- ◯ Polling
- ◯ Multiple access

Question 2 of 125

You have implemented a network where hosts are assigned specific roles, such as file sharing and printing roles. Other hosts access those resources, but do not host services of their own.

What type of network do you have?

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

Question 3 of 125

You have a small network that uses a switch to connect multiple devices. Which physical topology are you using?

- ◯ Bus
- ◯ Star
- ◯ Mesh
- ◯ Ring

Question 4 of 125

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 that forwards them to the destination devices.

Question 5 of 125

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 that forwards them to the destination devices.

Question 6 of 125

Which of the following topologies connects all devices to a trunk cable?

○ Bus

○ Ring

○ Star

○ Tree

Question 7 of 125

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

○ Bus

○ Ring

○ Star

○ Mesh

Question 8 of 125

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 9 of 125

What device is used to create a physical star topology?

○ Switch

○ Bridge

○ Router

○ Firewall

Question 10 of 125

In the OSI model, what is the primary function of the Network layer?

○ Allows applications to establish, use, and end a connection

○ Transmits data frames

○ Ensures that packets are delivered with no loss or duplication

○ Routes messages between networks

Question 11 of 125

Which of the following functions are performed at the Physical layer of the OSI model?

○ Moving data across network cables

○ Enabling network services

○ Conversation identification

○ Data translation

○ Provisioning environments where you can run network applications

Question 12 of 125

Which OSI model layer is responsible for guaranteeing reliable message delivery?

○ Transport

○ Application

○ Session

○ Data Link

Question 13 of 125

Which of the following protocols allows hosts to exchange messages to indicate problems with packet delivery?

○ IP

○ TCP

○ ICMP

○ IGMP

○ DHCP

○ ARP

Question 14 of 125

Which protocol is used on the World Wide Web to transmit web pages to web browsers?

○ HTTP

○ HTML

○ SMTP

○ NNTP

Question 15 of 125

Your company has just acquired another company in the same city. You need to integrate the two email systems so that messages can be exchanged between the email servers. Currently, each network uses an email package from a different vendor.

Which TCP/IP protocol will enable message exchange between systems?

○ SMTP

○ ICMP

○ IMAP4

○ FTP

○ POP3

Question 16 of 125

You are an application developer, and you are writing a program for exchanging video files through a TCP/IP network. You need to select a transport protocol that will guarantee delivery.

Which TCP/IP protocol provides this capability?

○ <mark>TCP</mark>

○ UDP

○ IP

○ RIP

○ <mark>FTP</mark>

○ TFTP

Question 17 of 125

Which of the following protocols stores email on the mail server and allows users to access messages from various client devices without having to download the emails?

○ <mark>IMAP4</mark>

○ SMTP

○ POP3

○ NTP

Question 18 of 125

Which protocol is used to securely browse a website?

○ <mark>HTTPS</mark>

○ SSH

○ UDP

○ SIP

○ ARP

Question 19 of 125

The UDP transport protocol provides which of the following features? (Select all that apply.)

☐ <mark>Low overhead</mark>

☐ Sequence numbers and acknowledgements

☐ Guaranteed delivery

☐ <mark>Connectionless datagram services</mark>

Question 20 of 125

What protocol sends email to a mail server?

○ <mark>SMTP</mark>

○ FTP

○ SNMP

○ <mark>POP3</mark>

○ TFTP

Question 21 of 125

You have a large TCP/IP network and want to keep a host's real time clock synchronized. What protocol should you use?

○ NTP

○ SNMP

○ SMTP

○ NNTP

○ SAP

Question 22 of 125

Which of the following protocols includes extensive error checking to ensure that a transmission is sent and received without mistakes?

○ TCP

○ UDP

○ UDB

○ UCP

Question 23 of 125

Which of the following connectors is used with Ethernet 100BaseT networks?

○ ST

○ BNC

○ RJ11

○ RJ45

Question 24 of 125

Why might you use an RJ11 connector?

○ You want to connect the 10BaseT network card in your computer to a switch.

○ You want to connect your computer to the internet with a DSL modem.

○ You want to upgrade your 10BaseT network to 100BaseTX.

○ You want to test a network cable to see if there is a break in the line.

Question 25 of 125

Which of the following cables offers the best protection against EMI?

○ Cat 5

○ Cat 5e

○ Cat 6a

○ RG-6

Question 26 of 125

Which type of optical fiber is normally used to connect two buildings that are several kilometers apart?

○ Single-mode

○ Dual-mode

○ Multi-mode

Fibre Channel mode

Question 27 of 125

Which of the following are advantages of using fiber optic cabling for a network? (Select two.)

Greater cable distances without a repeater

Immunity to electromagnetic interference

Lower installation cost

No special training or equipment is required

Question 28 of 125

You are building network cables and attaching RJ45 connectors to each end. Which tool do you need for this task?

Crimping tool

Punch down tool

Needle nose pliers

Wire puller

Question 29 of 125

Which of the following connector types are used with UTP cables? (Select two.)

RJ11

RJ45

BNC

F-Type

SC

Question 30 of 125

You want to measure the voltage, amps, and ohms of various devices.

Which tool should you use?

Butt set

Multimeter

Certifier

Toner probe

Voltage event recorder

Question 31 of 125

You are creating an Ethernet network for your company. The shipping department is located in a different building that is located 150 meters from the main wiring closet. You use a single Cat6e cable to connect the wiring closet to the shipping building.

Which of the following conditions are you most likely to experience?

Crosstalk

Attenuation

Impedance mismatch

Open circuit

Question 32 of 125

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

○ Client

○ Network interface card

○ Peripheral

○ Protocol

○ Server

Question 33 of 125

You have a server that has a 100BaseFX network interface card that you need to connect to a switch. The switch only has 100BaseTX switch ports.

Which device should you use?

○ Repeater

○ Hub

○ Media converter

○ Gateway

○ Bridge

Question 34 of 125

Which device sends signals from a computer onto a network?

○ Transceiver

○ Router

○ Cable

○ Gateway

Question 35 of 125

At which OSI model layer does a media converter operate?

○ Layer 1

○ Layer 2

○ Layer 3

○ Layer 4

Question 36 of 125

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 37 of 125

Which of the following is a valid MAC address?

○ FABC.875E.9BG6

○ 145.65.254.10

○ AB.07.CF.62.16.BD

○ 95ABC2F4.ABC5.569D.43BF

Question 38 of 125

A host wants to send a message to another host that has 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?

○ ICMP

○ IGMP

○ BOOTP

○ DHCP

○ ARP

○ DNS

Question 39 of 125

Which of the following is true about the MAC address? (Select two.)

☐ It is a 48-bit address.

☐ It is a 32-bit address.

☐ It is a 64-bit address.

☐ It is typically represented by hexadecimal numbers.

☐ It is typically represented by octets of decimal numbers between 0-255.

Question 40 of 125

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 41 of 125

How do switches and bridges learn where devices are located on a network?

○ When a frame enters a port, the destination MAC address is copied from frame header.

○ When a frame enters a port, the source MAC address is copied from the frame header.

○ When a frame enters a port, the source IP address is copied from the frame header.

○ When a frame enters a port, the destination IP address is copied from the frame header.

Which of the following devices does not segment the network?

○ Hub

○ Switch

○ Router

○ Firewall

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

☐ Router

☐ Bridge

☐ Switch

☐ Gateway

☐ Hub

☐ Repeater

Which of the following devices operate at the Data Link layer of the OSI model? (Select three.)

☐ Bridges

☐ Network interface cards (NICs)

☐ Switches

☐ Routers

☐ Repeaters

☐ Hubs

Which of the following devices operates at the OSI model Layer 2?

○ Hub

○ Switch

○ Router

○ Firewall

Which of the following hardware devices links multiple networks and directs traffic between networks?

○ Router

○ Bridge

○ Hub

○ Repeater

Question 47 of 125

Which of the following is the best device to deploy if you want to protect your private network from a public untrusted network?

○ Firewall

○ Router

○ Hub

○ Gateway

Question 48 of 125

The media access control method of all Ethernet networks is _____.

○ CSMA/CD

○ CSMA/CA

○ Token passing

○ Polling

Question 49 of 125

What is the minimum cable specification that supports 1000 Mbps Ethernet?

○ Cat 3

○ Cat 4

○ Cat 5

○ Cat 5e

○ Cat 6

○ Cat 7

Question 50 of 125

What type of cabling is used with 100BaseTX Fast Ethernet networks?

○ Cat5 or higher

○ Fiber optic

○ Cat3

○ Cat4

Question 51 of 125

Which of the following standards is typically used in a rollover cable?

○ RS232

○ RG6

○ RG58

○ RJ11

Question 52 of 125

You recently created a new network segment for the development department. Because the hosts are now on a different network segment, they can no longer contact the DHCP server. Both network segments are connected via a Cisco router.

Which of the following would be the best action to take in order to fix the problem?

○ Install and configure a new DHCP server on the development network segment.

○ Configure the router to forward broadcast messages.

○ Implement an IP helper address on the router.

○ Move the DHCP server to the new network segment.

Question 53 of 125

You have a workstation connected to a small branch network using a single switch. The network does not have any routers and is not connected to the internet. What are the minimum configuration parameters required on the workstation to be able to communicate with all hosts on the network?

○ IP address and subnet mask

○ IP address, subnet mask, and default gateway

○ IP address

○ IP address and default gateway

Question 54 of 125

Which of the following is a valid IPv4 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 55 of 125

A host on the network has an IP address of 129.11.99.78 using the default subnet mask. How would you identify the address and mask using CIDR notation?

○ 129.11.99.78/16

○ 129.11.99.78/8

○ 129.11.99.78/24

○ 129.11.99.78:16

○ 129.11.99.78:8

○ 129.11.99.78:24

Question 56 of 125

You are configuring the IP address for a host and have been asked to use the address 192.160.99.110/16. What subnet mask value would you use?

○ 255.0.0.0

○ 255.255.0.0

○ 255.255.252.0

○ 255.255.255.0

Question 57 of 125

Which of the following best describes the purpose of using subnets?

○ Subnets divide an IP network address into multiple network addresses.

○ Subnets combine multiple IP network addresses into one network address.

○ Subnets place each device within its own collision domain.

○ Subnets let you connect a private network to the internet.

Question 58 of 125

A host has the address 100.55.177.99/16. Which of the following is the broadcast address for the subnet?

○ 255.255.0.0

○ 255.255.255.0

○ 100.55.255.255

○ 100.55.177.255

○ 100.255.255.255

Question 59 of 125

Which of the following terms are often synonymous with or made possible with CIDR? (Select two.)

☐ Classless

☐ Classful

☐ VLSM

☐ OSPF

☐ NAT

Question 60 of 125

Which organization is responsible for allocating public IP addresses?

○ IANA

○ IEEE

○ CompTIA

○ IETF

Question 61 of 125

Which of the following is not a reason to use subnets on a network?

○ Improve security.

○ Extend the network.

○ Isolate network problems.

○ Combine different media type on to the same subnet.

Question 62 of 125

You've decided to use a subnet mask of 255.255.192.0 on the 172.17.0.0 network to create four separate subnets.

Which network IDs will be assigned to these subnets in this configuration? (Select two.)

☐ 172.17.16.0

☐ 172.17.128.0

☐ 172.17.0.0

☐ 172.17.32.0

☐ 172.17.96.0

Question 63 of 125

You manage a server that uses an IP address of 192.168.255.188 with a mask of 255.255.0.0.

Which of the following describes the address type?

○ Multicast

○ Broadcast

○ Public

○ Classless

○ Classful

Question 64 of 125

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 65 of 125

What is the network address and subnet mask used by APIPA? (Select two.)

☐ 169.254.0.0

☐ 255.255.0.0

☐ 255.0.0.0

☐ 255.255.255.0

☐ 169.255.0.0

☐ 169.0.250.0

Question 66 of 125

CorpServ is a small company with 14 client systems and a network printer. Because there are only a limited number of networked systems, you decide to use APIPA addressing for the network. With APIPA configured, all systems are able to communicate with each other, but you are having trouble configuring Internet access.

What is the likely cause of the problem?

○ The default gateway is not set on the client systems.

○ The default gateway is not set on the server.

○ Private addresses cannot directly communicate to hosts outside the local subnet.

○ All client systems must be rebooted.

○

The DNS server is unavailable to resolve internet host names.

Question 67 of 125

After installing a new DHCP server on the network, you need to verify that network devices are receiving IP addressing via DHCP. You reboot a Windows 10 client system and using the **ipconfig /all** command, receive the following information:

Ethernet adapter Local Area Connection 1:
Description . . . . : Intel(R) Ethernet Connection
Physical Address. . . . . : 02-00-4C-4F-3F-50
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes
Autoconfiguration IPv4 Address. . : 169.254.25.129
Subnet Mask . . . . : 255.255.0.0
Default Gateway . . . . :
DNS Servers . . . . :

Which of the following statements are true? (Select two).

- [ ] DHCP is disabled on the client system.

- [ ] The network is configured to use static IP addressing.

- [ ] The client system is configured to use DHCP.

- [ ] The client system is unable to reach the DHCP server.

- [ ] The default gateway address needs to point to the DHCP server.

- [ ] The network subnet mask is incorrect.

Question 68 of 125

You have a network with 50 workstations. You want to automatically configure workstations with the IP address, subnet mask, and default gateway values.

Which device should you use?

- ( ) Gateway

- ( ) Router

- ( ) DHCP server

- ( ) DNS server

Question 69 of 125

Due to widespread network expansion, you have decided to upgrade the network by configuring a DHCP server. The network uses Linux, Windows, and Mac OS X client systems.

You configure the server to distribute IP addresses from 192.168.2.1 to 192.168.2.100. You use the subnet mask of 255.255.255.0.

After making all setting changes on the DHCP server, you reboot each client system, but they are not able to obtain an IP address from the DHCP server.

Which of the following would explain the failure?

- ( ) The DHCP server must be rebooted.

- ( ) 192.168.x.x requires a class C subnet mask.

- ( ) The clients must be configured to obtain IP addressing from a DHCP server.

- ( ) DHCP does not function in a heterogeneous computing environment.

- ( ) DHCP does not work in a heterogeneous computing environment unless the DHCP Samba client software is installed.

Question 70 of 125

You need to enable hosts on your network to find the IP address of logical names such as srv1.myserver.com. Which device would you use?

- ( ) DNS server

- ( ) Bandwidth shaper

○ IDS

○ IPS

○ Load balancer

Question 71 of 125

You need to keep users in all other departments from accessing the servers used by the finance department.

Which of the following technologies should you use to logically isolate the network?

○ VLANs

○ NIC teaming

○ Subnetting

○ MAC filtering

Question 72 of 125

Which of the following are reasons to configure VLANs on a switch as opposed to using switches without VLANs? (Select two.)

☐ Increased number of broadcast domains

☐ Allowing broadcast traffic between subnets

☐ Increased number of collision domains

☐ Increased security

☐ Redundant paths between two hosts

Question 73 of 125

Which of the following statements describe how VLANs affect broadcast traffic within an internetwork? (Select two.)

☐ Devices on the same VLAN have the same subnet address.

☐ Broadcast traffic is transmitted to all devices on all VLANs.

☐ Broadcast traffic is only transmitted on VLAN1.

☐ Devices on separate VLANs share the same subnet address.

☐ Broadcast traffic is transmitted only within a VLAN.

Question 74 of 125

Which of the following are true regarding using multiple VLANs on a single switch? (Select two.)

☐ The number of collision domains remains the same.

☐ The number of broadcast domains remains the same.

☐ The number of broadcast domains increases.

☐ The number of broadcast domains decreases.

☐ The number of collision domains increases.

☐ The number of collision domains decreases.

Question 75 of 125

You can create a virtual LAN using which of the following?

○ Switch

○ Router

○ Gateway

○ Hub

Question 76 of 125

You manage a network that uses a single switch. All ports within your building connect through the single switch.

In the lobby of your building are three RJ45 ports connected to the switch. You want to allow visitors to plug into these ports to gain internet access, but they should not have access to any other devices on your private network. Employees connected throughout the rest of your building should have both private and internet access.

Which feature should you implement?

○ Port authentication

○ VLANs

○ NAT

○ DMZ

Question 77 of 125

Your company is a small start-up that has leased office space in a building shared by other businesses. All businesses share a common network infrastructure. A single switch connects all devices in the building to the router that provides internet access.

You would like to make sure that your computers are isolated from computers used by other companies. Which feature should you request to have implemented?

○ VLAN

○ Spanning tree

○ Port security

○ VPN

Question 78 of 125

Which of the following connectivity hardware is used to create a VLAN?

○ Bridge

○ Switch

○ Router

○ Hub

Question 79 of 125

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 same switch which is in VLAN 2.

What should you configure so that the two devices can communicate?

○ Routing

○ Spanning tree

○ Trunking

○ PoE

○ Mirroring

Question 80 of 125

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

○ You can create multiple collision domains.

○ You can create multiple broadcast domains.

○ You can provide guaranteed bandwidth between two devices.

○ You can segment the network based on physical location.

Question 81 of 125

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?

○ Trunking

○ Layer 3 switching

○ Spanning tree

○ Bonding

Question 82 of 125

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

Which feature prevents switching loops and ensures there is only a single active path between any two switches?

○ Trunking

○ Spanning tree

○ PoE

○ 802.1x

○ Bonding

Question 83 of 125

Which problem does the spanning tree protocol prevent?

○ Switching loops from developing when redundant paths are implemented between switches.

○ Buffer overflows by defining source-quench messages that a receiving device sends to the transmitting device.

○ Routing tables from becoming outdated by decreasing the convergence time on a network.

○ Packet blocking on backup bridge ports to allow switches to forward frames to all BPDUs.

Question 84 of 125

Which of the following are advantages of using the spanning tree protocol (STP) in network segmented bridges? (Select three.)

☐ Prevents switching loops from forming.

☐ Lets you provide redundancy by using more than one connection between devices, making your network more reliable.

☐ Identifies the optimal path between network devices.

☐ Calculates all the possible paths through the network and performs load balancing.

☐ Minimizes the convergence time required for bridges to share network information.

Question 85 of 125

When multiple routes to a destination exist, what is used to select the best possible route?

○ Exterior gateway protocol

○ Metric

○ Distance vector

○ Autonomous system number

Question 86 of 125

What information does the *next hop* entry in a routing table identify?

○ The first router in the path to the destination network.

○ The last router in the path to the destination network.

○ The number of routers that the packet must go through to reach the destination network.

○ A backup router that is used to forward packets addressed to unknown networks.

Question 87 of 125

A router is connected to network 192.168.1.0/24 and network 192.168.2.0/24. The router is configured to use RIP and has learned of networks 192.168.3.0/24 and 192.168.4.0/24. The router is also configured with a static route of 0.0.0.0 with a mask of 0.0.0.0.

The router receives a packet addressed to network 10.1.0.0/16. What will the router do with the packet?

○ Drop the packet.

○ Forward the packet to the next hop router specified by the route to network 0.0.0.0.

○ Send the packet out both of its directly connected networks as a broadcast frame.

○ Send the packet out both of its directly connected networks to the next hop router.

Question 88 of 125

A router is connected to network 192.168.1.0/24 and network 192.168.2.0/24. The router is configured to use RIP and has learned of networks 192.168.3.0/24 and 192.168.4.0/24. There is no default route configured on the router.

The router receives a packet addressed to network 10.1.0.0/16. What will the router do with the packet?

○ Drop the packet.

○ Send the packet out both of its directly-connected networks as a broadcast frame.

○ Send the packet to both networks 192.168.3.0 and 192.168.4.0 and to the next hop router.

○ Hold the packet in cache until a matching route is learned or configured.

Question 89 of 125

Which of the following is a characteristic of static routing when compared to dynamic routing?

○ Routers use the hop count to identify the distance to a destination network.

○ All routes must be manually updated on the router.

○ Routers send packets for destination networks to the next hop router.

○ Routers can only use static routing when not connected to the internet.

Question 90 of 125

Which of the following tasks do routers perform? (Select two.)

- [ ] Route data based on logical network addresses.

- [ ] Maintain information about paths through an internetwork.

- [ ] Control access to the transmission media.

- [ ] Identify devices through hardware addresses.

- [ ] Multiplex signals onto the same transmission media.

- [ ] Route data based on hardware device addresses.

Question 91 of 125

Which of the following routing protocols uses relative link cost as the metric?

- ○ OSPF

- ○ EIGRP

- ○ RIP

- ○ BGP

Question 92 of 125

Which of the following routing protocols is used by routers on the internet for learning and sharing routes?

- ○ OSPF

- ○ IS-IS

- ○ EIGRP

- ○ BGP

- ○ RIP

Question 93 of 125

Which of the following routing protocols divides the network into areas, with all networks required to have an area 0 (area 0 identifying the backbone area)?

- ○ RIP

- ○ EIGRP

- ○ OSPF

- ○ IS-IS

Question 94 of 125

Which of the following routing protocols is classified as a hybrid routing protocol?

- ○ RIP

- ○ OSPF

- ○ EIGRP

- ○ IS-IS

Question 95 of 125

Which of the following routing protocols are classified as link state routing protocols? (Select two.)

- [ ] OSPF

- [ ] IS-IS

☐ RIP

☐ RIPv2

☐ EIGRP

Question 96 of 125

What are the main differences between the OSPF and IS-IS routing protocols?

○ OSPF is a link state protocol, while IS-IS is not.

○ OSPF requires an area 0, while IS-IS does not.

○ OSPF is an IGP routing protocol, while IS-IS is a BGP routing protocol.

○ OSPF is a classful protocol, while IS-IS is a classless protocol.

Question 97 of 125

Which of the following protocols has a limit of 15 hops between any two networks?

○ RIP

○ EIGRP

○ OSPF

○ IS-IS

○ BGP

Question 98 of 125

What is the main difference between RIP and RIPv2?

○ RIP is a distance vector protocol, while RIPv2 is a link state protocol.

○ RIP is a classful protocol, while RIPv2 is a classless protocol.

○ RIP has a limit of 15 hops, while RIPv2 increases the hop count limit.

○ RIP use the hop count for the metric, while RIPv2 uses a relative link cost.

Question 99 of 125

Under which of the following circumstances might you implement BGP on your company network and share routes with Internet routers?

○ If the network has over 15 hops.

○ If the network is connected to the Internet using public addressing.

○ If the network is connected to the Internet using multiple ISPs.

○ If the network has over 15 areas and uses IPv6.

Question 100 of 125

Which of the following statements about RIP is true?

○ RIP is the routing protocol used on the internet.

○ RIP is a link state routing protocol.

○ RIP uses hop counts as the cost metric.

○ RIP is suitable for large networks.

Question 101 of 125

Which of the following best describes OSPF?

○ OSPF is a classless distance vector routing protocol.

○ OSPF is a classful distance vector routing protocol.

○ OSPF is a classless link state routing protocol.

○ OSPF is a classful link state routing protocol.

Question 102 of 125

You have a private network connected to the internet. Your routers will not share routing information about your private network with internet routers.

Which of the following best describes the type of routing protocol you would use?

○ IGP

○ BGP

○ Link state

○ Distance vector

○ Static

○ Dynamic

Question 103 of 125

A router is connected to network 192.168.1.0/24 and network 192.168.2.0/24. The router is configured to use RIP and has learned of networks 192.168.3.0/24 and 192.168.4.0/24.

The next hop router for network 192.168.3.0 has changed. You need to make the change with the least amount of effort possible.

What should you do?

○ Manually reconfigure the default route to point to the new next hop router.

○ Force RIP to perform an immediate update.

○ Stop and restart the RIP protocol on the router.

○ Wait for convergence to take place.

Question 104 of 125

Which of the following routing protocols uses paths, rules, and policies instead of a metric for making routing decisions?

○ BGP

○ OSPF

○ IS-IS

○ EIGRP

○ RIP

Question 105 of 125

Which of the following techniques allows incoming traffic addressed to a specific port to move through a NAT router and be forwarded to a specific host?

○ Port address translation

○ Port forwarding

○ EIGRP

○

⚪ Spanning tree protocol

Question 106 of 125

Your computer has an IP address of 161.13.5.15. Your computer is on a:

⚪ Public network

⚪ Private network

⚪ Class C network

⚪ Multi-cast network

Question 107 of 125

Which of the following IP addresses is a valid IP address for a host on a public network?

⚪ 10.3.125.2

⚪ 172.16.254.12

⚪ 192.168.16.45

⚪ 142.15.6.1

Question 108 of 125

Which of the following is not one of the ranges of IP addresses defined in RFC 1918 that are commonly used behind a NAT server?

⚪ 10.0.0.1 - 10.255.255.254

⚪ 172.16.0.1 - 172.31.255.254

⚪ 169.254.0.1 - 169.254.255.254

⚪ 192.168.0.1 - 192.168.255.254

Question 109 of 125

Which of the following associates a port number with a host on a private network?

⚪ PAT

⚪ NAT

⚪ CIDR

⚪ VLSM

Question 110 of 125

You have a computer that is connected to the internet through a NAT router. You want to use a private addressing scheme for your computer. Which of the following IP addresses could you assign to the computer? (Select all that apply.)

☐ 10.0.12.15

☐ 127.0.0.1

☐ 192.168.12.253

☐ 224.15.166.12

☐ 172.18.188.67

☐ 240.12.188.1

☐ 32.188.99.10

Question 111 of 125

You have a small network at home that is connected to the internet. On your home network, you have a server with the IP address of 192.168.55.199/16. All computers on your home network can connect to the internet.

From your work office, you try to access your home computer using its IP address, but are unable to communicate with the server. You are able to connect to other hosts on the internet.

Why can't you access the server?

○ Private addresses are not accessible through the internet.

○ The server has been assigned a multicast address.

○ The server must have an entry on a DNS server that exists on the internet.

○ The server isn't using the default subnet mask.

Question 112 of 125

You have just connected a new computer to your network. The network uses static IP addressing.

You find that the computer can communicate with hosts on the same subnet, but not with hosts on a different subnet. No other computers are having a problem.

Which of the configuration values would you most likely need to change?

○ IP address

○ Subnet mask

○ Default gateway

○ DNS server

Question 113 of 125

You manage a network with multiple subnets connected to the internet.

A user reports that she can't access the new server used in the accounting department. You check the problem and find out that her computer cannot access any server on that subnet. However, the computer does access other computers on other subnets as well as the internet.

Which of the following is most likely the cause of the problem?

○ Incorrect default gateway setting on the computer

○ Missing route on the default gateway router

○ Switching loop on the user's subnet

○ Incorrect VLAN membership of the accounting server

Question 114 of 125

Examine the following output:

4 22 ms 21 ms 22 ms sttlwa01gr02.bb.ispxy.com [154.11.10.62]
5 39 ms 39 ms 65 ms plalca01gr00.bb.ispxy.com [154.11.12.11]
6 39 ms 39 ms 39 ms Rwest.plalca01gr00.bb.ispxy.com [154.11.3.14]
7 40 ms 39 ms 46 ms svl-core-03.inet.ispxy.net [205.171.205.29]
8 75 ms 117 ms 63 ms dia-core-01.inet.ispxy.net [205.171.142.1]

Which of these commands produced this output?

○ **ping**

○ **tracert**

○ **nslookup**

○ **pingroute**

Question 115 of 125

Which of the following utilities would you use to view the routing table?

- ⚪ **mtr**

- ⚪ **route**

- ⚪ **traceroute**

- ⚪ **tracert**

- ⚪ **dig**

Question 116 of 125

You are the network administrator of a branch office of your company. The branch office network is part of a WAN that covers most of the United States. The office has two Windows 2000 servers, two UNIX servers, one Windows NT server, 90 Windows 98 clients, 40 Windows 2000 Professional clients, and five Macintosh clients.

Users have been complaining that they are unable to access resources over the WAN at the main headquarters. You suspect that one of the routers between your office and the main headquarters is not working properly.

What TCP/IP utility can you use to see if a router is working properly?

- ⚪ **tracert**

- ⚪ **netstat**

- ⚪ **nbtstat**

- ⚪ **nslookup**

Question 117 of 125

Which of the following is the best device to deploy to protect your private network from a public untrusted network?

- ⚪ Firewall

- ⚪ Router

- ⚪ Hub

- ⚪ Gateway

Question 118 of 125

Which of the following prevents access based on website ratings and classifications?

- ⚪ Content filter

- ⚪ Packet-filtering firewall

- ⚪ DMZ

- ⚪ NIDS

Question 119 of 125

You would like to control internet access based on users, time of day, and websites visited. How can you do this?

- ⚪ Install a proxy server. Allow internet access only through the proxy server.

- ⚪ Configure the Local Security Policy of each system to add internet restrictions.

- ⚪ Configure a packet filtering firewall. Add rules to allow or deny internet access.

- ⚪ Enable Windows Firewall on each system. Add or remove exceptions to control access.

- ⚪ Configure internet zones using Internet Options.

Question 120 of 125

Which of the following functions are performed by proxies? (Select two.)

☐ Block employees from accessing certain websites

☐ Cache web pages

☐ Block unwanted packets from entering your private network

☐ Store client files

☐ Filter unwanted email

☐ Give users the ability to participate in real-time text-based internet discussions

Question 121 of 125

Which firewall implementation creates a buffer network that can be used to host email or web servers?

○ DMZ

○ ACL

○ Perimeter firewall

○ Host-based firewall

Question 122 of 125

Which of the following does a router acting as a firewall use to control which packets are forwarded or dropped?

○ ACL

○ IPsec

○ RDP

○ VNC

○ PPP

Question 123 of 125

Your company has a connection to the internet that allows users to access the internet. You also have a web server and an email server that you want to make available to internet users. You want to create a DMZ for these two servers.

Which type of device should you use to create the DMZ?

○ VPN concentrator

○ Network-based firewall

○ Host-based firewall

○ IDS

○ IPS

Question 124 of 125

You have a company network that is connected to the internet. You want all users to have internet access, but you need to protect your private network and users. You also need to make a web server publicly available to internet users.

Which solution should you use?

○ Use firewalls to create a DMZ. Place the web server inside the DMZ and the private network behind the DMZ.

○ Use firewalls to create a DMZ. Place the web server and the private network inside the DMZ.

○ Use a single firewall. Put the web server in front of the firewall and the private network behind the firewall.

Use a single firewall. Put the web server and the private network behind the firewall.

Question 125 of 125

You have just installed a packet filtering firewall on your network. Which options will you be able to set on your firewall? (Select all that apply.)

☐ Source address of a packet

☐ Port number

☐ Destination address of a packet

☐ Sequence number

☐ Acknowledgement number

☐ Digital signature

☐ Checksum