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This refers to the interface subcommand that assigns the interface's IP address.  
ip address ip-address mask

How are Frame Relay virtual circuits identified?  
DLCI

If Inverse ARP is not available for use, how can a network administrator still provide a Frame Relay connection to the service provider and forward routing updates?  
Use static mapping with the broadcast keyword

Which three technologies have presented challenges to network administrators when designing corporate networks? (Choose three.)  
virtualization  
collaboration tools  
personal devices

This is a global command that enables (ip routing) or disables (no ip routing) the routing of IPv4 packets on a router or Layer 3 switch.  
[no] ip routing

Which command would be used to troubleshoot serial interface encapsulation?  
debug ppp packet

Fill in the blank. The default encapsulation for WAN interfaces is  
HDLC

This is a global command on a Layer 3 switch to create a VLAN interface and to enter configuration mode for that VLAN interface.  
interface vlan vlan\_id

A router in a Frame Relay network needs to forward a message received from a host. What two methods does the router use to identify the correct VC to forward the message? (Choose two.)  
The router searches Inverse ARP tables for maps of DLCIs to IP addresses  
A table static mappings can be searched

Which Cisco Borderless Network service is used to deliver anywhere, anytime access to information from any device?  
Cisco Motion

What is the administrative distance of static route?  
1

What is the administrative distance of connected route?  
0

In a hierarchical network design, which layer is characterized by the use of port security and Power over Ethernet (PoE)?  
access

Which Cisco Enterprise Architecture module consists of a building or group of buildings consisting of many LANs in a fixed geographic area?  
enterprise campus

What are three mechanisms used by Frame Relay to reduce network overhead caused by congestion? (Choose three.)  
DE  
BECN  
FECN

Which bit is set by a Frame Relay switch to inform the source station that there is congestion on the network?  
BECN

Fill in the blank. The maximum average data rate a service provider guarantees to a customer is known as the CIR, Committed Information Rate

In a new network design, an organization has decided to manage all of its wireless access point using a wireless network controller. In which network design module of the campus network architecture would the centralized wireless network controllers be found?  
data center

This is the administrative distance for NDP.  
2

The DHCP server can use this information to know all addresses in the subnet.  
Subnet ID and mask

This is a global configuration command that creates a static route.  
ip route prefix mask {ip-address | interface-type interface-number} [distance] [permanent]

What is the purpose of a null modem cable?  
to connect between two DTE devices

How much total bandwidth is provided by a T1 line?  
1.544 Mb/s

Which public WAN technology provides security by using encrypted tunnels over Internet connections?  
VPN

This is a subinterface subcommand that tells the router to use 802.1Q trunking, for a particular VLAN, and with the native keyword, to not encapsulate in a trunking header.  
encapsulation dot1q vlan-id [native]

How many DS0 channels are bounded to produce a 1.544 Mb/s line?  
24

This is a global command to create a subinterface and to enter configuration mode for that subinterface.  
interface type number.subint

What are two reasons Frame Relay is most cost-effective than leased lines? (Choose two.)  
uses less equipment  
shares bandwidth across a large customer base

A new corporation needs a data network that must meet certain requirements. The network must be fast and reliable to transmit secure video conferencing calls between two branches. If cost is not a consideration, which two types of WAN infrastructure would best meet the requirements? (Choose two.)  
private infrastructure  
dedicated

Which serial 0/0/0 interface state will be shown if no serial cable is attached to the router, but everything else has been correctly configured and turned on?  
Serial 0/0/0 is down, line protocol is down

A construction firm is building a power plant at a remote and isolated mine site and needs to connect the data network of the plant to the corporate network. Which public technology is the most suitable to meet the connection needs?  
satellite Internet

This is a subinterface subcommand that tells the router to use ISL trunking for a particular VLAN.

encapsulation isl vlan-identifier

Which two WAN infrastructure services are examples of private connections?

(Choose two.)

Frame Relay

T1/E1

An ip route command can have correct \_\_\_\_\_, accepted and added to the running-config file, and saved into the startup-config file, but never be placed into the IP routing table and seen in the output of the show ip route command.  
syntax

This is the IP address of the router on that subnet.

Default router(s)

In what situation would it be best to use Frame Relay subinterfaces?

any time EIGRP or OSPF is used across the Frame Relay cloud

when IPv6 used

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Which PPP option enables load balancing on PPP-enable interfaces that connect to a single destination?

Multilink

The sets the DHCP lease time to infinite. As a result, once the server chooses an address from the pool and assigns the IP address to a client, the IP address remains with that same client indefinitely.

automatic allocation

A \_\_\_\_\_ server might sound like some large piece of hardware, sitting in a big locked room with lots of air conditioning to keep the hardware cool.

DHCP

If the client does not renew, the \_\_\_\_\_ can reclaim the IP address and put it back in the pool of available IP addresses.

server

This uses the same administrative distance concept and default values for IPv6 as it does for IPv4.

IOS

The server needs to know which addresses in the subnet to not lease

Reserved (excluded) addresses

This is a command on Cisco switches that enables the switch to support IP routing if configured.

sdm prefer lanbase-routing

What is different about using IPv6 with Frame Relay compared to using IPv4? the protocol to obtain the Layer 3 address of the opposite device

This preconfigures the specific IP address for a client based on the client's MAC address.

static allocation

Which two functions are provided by the NCP during a PPP connection? (Choose two.)

bringing the network layer protocol or protocols up and down  
the negotiation of options for the IP protocol

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On a campus network, personnel who are located in a five site college have access to servers found in one location. In which network module of the campus network architecture would these servers be found?  
access-distribution

What is a benefit of dividing a flat network into a hierarchical design?  
A hierarchical design will provide smaller network blocks to manage

Which Cisco Enterprise Architecture network module provides connectivity between the enterprise campus module to the remote enterprise data center?  
service provider edge

Which network scenario will require the use of a WAN?  
Employees need to connect to the corporate email server through a VPN while travelling

What is an advantage of configuring subinterfaces in a Frame Relay environment?  
reduces split horizon issues  
makes the DLCIs globally significant

What is a definition of a two-tier LAN network design?  
distribution and core layers collapsed into one tier and the access layer on a separate tier

Which enterprise network module provides connectivity for voice, video, and data services outside the enterprise?  
enterprise teleworker

What are two common types of circuit-switched WAN technologies? (Choose two.)  
PSTN  
ISDN

A network designer is prototyping a WAN design. When configuring CHAP authentication for PPP, how should the username on each router be configured?  
It should be the same as the remote router hostname

For IT departments, what is the main challenge that is caused by the increasing number of personal devices such as smartphones and tablets connecting to the corporate network?  
security

Which two statements are true about time-division multiplexing (TDM)? (Choose two.)  
Multiple channels can transmit over a single link  
Original data streams must be reconstructed at the destination

What is characteristic of the delivery of applications in a Cisco borderless network?  
Applications are delivered in an highly distributed environment

What keyword is used in a Frame Relay static map configuration when OSPF is used among various sites of a corporation?  
broadcast

With which layers of the OSI model do the PPP control protocols interface?  
NCP interfaces with Layer 3; LCP interfaces with Layer 1

Which two protocols provide authentication services for PPP? (Choose two.)  
PAP  
CHAP

Which layer of the hierarchical design model is a control boundary between the other layers?  
distribution

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Which site-to-site connection provides a secure and reliable remote connection to teleworkers to access corporate networks over the Internet?  
VPN

In order for the IT staff of a company to understand the basic operation of VPNs, which two features or technology must the network designer identify as training needs? (Choose two.)  
encryption algorithms  
tunnelling protocols

What are two disadvantages to being a teleworker? (Choose two.)  
increased distractions  
increased seclusion

Where is PPPoE configured on a Cisco router?  
on the dialer interface

What is a component of an ADSL connection that is located at the customer site?  
CPE

What is the appropriate usage of a Very Small Aperture Terminal (VSAT)?  
to create a private WAN

What are three characteristics that help build a successful environment for a teleworker? (Choose three.)  
broadband Internet connection  
a flexible approach to require work  
distraction free workplace

What is the approximate distance limitation for providing a satisfactory ADSL service from the central office to a customer?  
3.39 miles or 5.46 kilometers

Fill in the blank. Use the acronym. PPP supports  
CHAP

A router in a Frame Relay network needs to forward a message received from a host. What two methods does the router use to identify the correct VC to forward the message? (Choose two.)  
The router forwards the frame to all ports in the network and learns the address from the reply frame  
A table static mappings can be searched

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