

# Exam Questions 4A0-100

Alcatel-Lucent Scalable IP Networks

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#### NEW QUESTION 1

The physical networks connecting two PCs to the internet are DSL and PPP respectively. Which layer will enable the two PCs to communicate?

- A. Layer 1
- B. Layer 2
- C. Layer 3
- D. Layer 4

**Answer: C**

#### NEW QUESTION 2

Which of the following is a File command in the File System context of the Command Line Interface (CLI)?

- A. time-display
- B. help
- C. type
- D. terminal

**Answer: C**

#### NEW QUESTION 3

A set of tasks that move a packet from its entry into an IP network to its exit from the IP network. This describes:

- A. IP routing
- B. IP protocol
- C. IP encapsulation
- D. IP tunneling

**Answer: A**

#### NEW QUESTION 4

Address summarization reduces the routing table size by:

- A. Allowing a contiguous block of network addresses to be represented by one network prefix
- B. Increasing the number of addresses in the routing table
- C. Summarizing addresses in the network into smaller routing tables
- D. Not advertising directly connected routes

**Answer: A**

#### NEW QUESTION 5

Which of the following is an important advantage of protocol layering? (Choose two)

- A. Controls distribution of IP addresses
- B. Simplifies protocol functionality
- C. Isolates changes in lower layers from upper layers
- D. Increases protocol operational efficiency
- E. Layering adds to the fragmentation of the data

**Answer: CD**

#### NEW QUESTION 6

Which of the following best describes an Ethernet bridge?

- A. A passive device simply used to connect two or more cables
- B. Does not generate or amplify any signal
- C. A device that receives and retransmits a signal out its other ports, but does not do any Layer 2 analysis of the data
- D. A device that receives a signal and based on the Layer 2 destination address, makes a decision on which ports the signal should be retransmitted
- E. A device that receives a signal and based on the Layer 3 destination address, makes a decision on which ports the signal should be retransmitted

**Answer: C**

#### NEW QUESTION 7

Which of the following is true of Ethernet half-duplex transmission?

- A. Half-duplex transmission is less efficient because the frame MTU is smaller
- B. Half-duplex transmission is only 30-40% efficient because of collision
- C. Ethernet switches support half-duplex transmission only
- D. All of the above

**Answer: B**

#### NEW QUESTION 8

What is the sequence of messages sent by a host when it attempts to ping a destination for which it has no Address Resolution Protocol (ARP) cache entry?

- A. ICMP echo request, ARP request, ARP reply, ICMP echo repl
- B. ARP request, ARP reply, ICMP echo request, ICMP echo repl
- C. ICMP echo request, ICMP echo reply, ARP request, ARP repl
- D. ICMP echo request, ARP reply, ARP request, ICMP echo repl

**Answer: B**

#### NEW QUESTION 9

Which of the following describes an IP filter on the Alcatel-Lucent 7750 SR?

- A. An IP filter is used to examine an IP packet and its content
- B. An IP filter is applied to allow or deny IP packets into a networ
- C. Multiple ingress and egress filter policies can be applied to a network interfac
- D. Once an IP filter is applied it cannot be modifie

**Answer: B**

#### NEW QUESTION 10

Given the Mac Address 00-20-60-ce-2b:28, which part is the Organizationally Unique Identifier (OUI)?

- A. 2b:28
- B. 00-20
- C. ce-2b:28
- D. 00-20-60

**Answer: D**

#### NEW QUESTION 10

What is the basic unit of framing in SONET and the bit rate for its transmission?

- A. STS-1 with a bit rate of 1.544 Mbit/s
- B. STS-1 with a bit rate of 2.048 Mbit/s
- C. STS-1 with a bit rate of 51.84 Mbit/s
- D. STS-1 with a bit rate of 155.52 Mbit/s

**Answer: C**

#### NEW QUESTION 15

How many of the front access card slots of the Alcatel-Lucent 7750 SR-12 router are dedicated for redundant common equipment?

- A. 1
- B. 2
- C. 7
- D. 10

**Answer: B**

#### NEW QUESTION 20

Choose two true statements that characterize Link State Routing

- A. Routers send a copy of their routing table to their neighbors periodicall
- B. Routers flood link information throughout the entire are
- C. Network converges quickly (within several seconds) after a topology chang
- D. Routers do not have precise knowledge of the entire network topolog

**Answer: BC**

#### NEW QUESTION 21

Using Q-in-Q Virtual Local Area Network (VLAN) stacking, how does a carrier differentiate onecustomers traffic from that of another?

- A. The provider edge (PE) switch adds an additional field called a PE tag to the customers Layer 2 dat
- B. The PE switch replaces the customers VLAN tag with a carrier-assigned ta
- C. The PE switch adds a second VLAN tag to identify the customers traffic on the carriers networ
- D. The PE switch assigns a customer-specific priority label to the customers traffi

**Answer: C**

#### NEW QUESTION 22

Whichof the following is the best description of well known ports?

- A. Well known ports apply to routers only and are used for communication and control traffi
- B. Well known port numbers are assigned by IANA and can have any valu
- C. Well known ports are used by TCP and UD

- D. Well known port numbers range from 1024 to 65535 and are assigned by IAN
- E. Well known port numbers are used by both TCP and UD
- F. Well known port numbers range from 1 to 1023 and are assigned by IAN
- G. Well known ports numbers are used by TCP onl
- H. Well known port numbers are assigned by IANA and can have any valu

**Answer: C**

#### NEW QUESTION 27

The 201.148.26.0/24 network is subnetted using a /26 mask. How many subnets and host addresses will you obtain with this mask?

- A. 4 subnets, 64 hosts
- B. 64 subnets, 4 hosts
- C. 4 subnets, 62 hosts
- D. 64 subnets, 2 hosts
- E. 6 subnets, 30 hosts

**Answer: C**

#### NEW QUESTION 31

What characteristic of IP addressing creates a hierarchical network?

- A. All hosts on all networks must have unique host number
- B. IP addresses identify a host and the network on which it reside
- C. Clients are assigned 32-bit addresses and servers 64-bit addresse
- D. Router, switch and host addresses are drawn from unique address classe

**Answer: B**

#### NEW QUESTION 34

You are working from a particular Command Line Interface (CLI) context, and want to see the commands available from your current context. What command can you issue to view this information?

- A. view tree
- B. tree
- C. info detail
- D. info

**Answer: B**

#### NEW QUESTION 37

What happens immediately after an Ethernet switch receives an Ethernet frame?

- A. It records the destination MAC address and the interface on which it arrive
- B. It records the source MAC address and the interface on which it arrive
- C. It floods the frame out of all its interfaces except the interface on which the frame arrive
- D. It transmits the frame out of the appropriate interfac

**Answer: B**

#### NEW QUESTION 41

A 24 port Ethernet switch is configured with VLAN 100 on ports 1 - 8, VLAN 200 on ports 9

-  
16 and VLAN 300 on ports 17 - 24. Which of the following describes the behavior of the switch when a broadcast frame is received on port 1?

- A. The switch will discard the broadcast frame because there is no specific destination addres
- B. The switch will flood the broadcast frame on all ports on which the switch has seen frames from attached devices
- C. The switch will flood the broadcast frame on ports 2 to 8.
- D. The switch will flood the broadcast frame on all 24 port

**Answer: C**

#### NEW QUESTION 44

Who was responsible for developing and publishing the original standard that was used for 10 Mbit/s Ethernet?

- A. Intel Corporatio
- B. Digital Equipment Corporatio
- C. DEC-Intel-Xero
- D. Apple Compute
- E. IB

**Answer: C**

#### NEW QUESTION 48

The method by which Ethernet frames are associated to a specific VLAN is referred to as:

- A. Segmenting
- B. Stacking
- C. Routing
- D. Tagging

**Answer:** D

#### NEW QUESTION 53

Which of the following describes the Alcatel-Lucent 7750 SR Input/Output Module (IOM)?

- A. Small optical module available in a variety of format
- B. Contains a CPU for managing the forwarding hardware in each flexible fast pat
- C. Converts traffic from an external standard format to an internal forma
- D. Contains the CPU that runs the routing protocol software as well as the switch fabri

**Answer:** B

#### NEW QUESTION 58

Which of the following is typically a characteristic of Layer 2 framing?

- A. Provides a universal addressing scheme to uniquely identify destinations in the networ
- B. The size of the Layer 2 frame cannot exceed 1518 byte
- C. Provides error checking of the frame contents after transmissio
- D. All the abov

**Answer:** C

#### NEW QUESTION 59

What ICMP message type will a router use to indicate to a host that an IP datagram sourced from that host cannot be delivered?

- A. Echo Reques
- B. Destination Unreachabl
- C. Router redirec
- D. Echo Repl

**Answer:** B

#### NEW QUESTION 64

Which field in the IP routing table contains the name or address of the neighbour that advertised the prefix to the router?

- A. Preferenc
- B. Metri
- C. Dest pref
- D. Next ho

**Answer:** D

#### NEW QUESTION 65

Why is the address field in a PPP header always set to "11111111"?

- A. PPP supports multipoint access networks with many station
- B. The all 1's acts as a broadcas
- C. PPP supports multipoint access networks with many station
- D. The all 1's acts as a multicas
- E. PPP supports point-to-point networks onl
- F. The address field is fixe
- G. PPP supports point-to-point networks onl
- H. The address field can change dynamically since every station is assigned a PPP addres

**Answer:** C

#### NEW QUESTION 70

As described by the CSMA/CD algorithm, what is the first thing to happen when Host A and Host B begin transmitting data at the same time?

- A. Host A and B will generate a jam signa
- B. Listening hosts will request retransmissio
- C. Host A or B will retry the transmissio
- D. A back-off timer is started by Host A or

**Answer:** A

#### NEW QUESTION 72

What is the purpose of the broadcast address?

- A. Provides an address that refers to all the devices in a given networ

- B. Provides an address to refer to a specific group of devices in a given network
- C. Provides an address to refer to a group of devices having the same IP addresses in different Layer 2 network
- D. Provides an address to refer to a single device on a given network

**Answer:** A

#### NEW QUESTION 77

Which ATM adaptation layer is commonly used for transporting IP datagrams or non-real time data?

- A. AAL0
- B. AAL1
- C. AAL2
- D. AAL3/4
- E. AAL5

**Answer:** E

#### NEW QUESTION 79

The TCP/IP and OSI models of protocol are similar in that they both have:

- A. An application and session layer
- B. A network layer that provides a universal and consistent forwarding service
- C. A transport layer with two protocols
- D. An application services layer with similar layering and service definition

**Answer:** C

#### NEW QUESTION 81

What protocol is used by ping to verify IP network reachability?

- A. DHCP
- B. ICMP
- C. ARP
- D. NAT

**Answer:** B

#### NEW QUESTION 83

Which compact flash on a Control/Switch processor of an Alcatel-Lucent 7750 router stores the runtime image and running configuration?

- A. CF 1
- B. CF 2
- C. CF 3
- D. Both A and B

**Answer:** C

#### NEW QUESTION 88

Which of the following is a feature of Layer 3?

- A. Provides an universal addressing scheme
- B. Ensures data is delivered across the Layer 2 network
- C. Provides reliable data transfer
- D. Provides a physical interface to the network

**Answer:** A

#### NEW QUESTION 89

Which of the following statements is TRUE of Layer 3 addressing?

- A. Internet devices on the same network can have the same Layer 3 address in different broadcast domains
- B. Every Host device must have a unique Layer 3 address in order to access the Internet
- C. Internet devices need unique Layer 3 addresses to communicate directly with upper layers
- D. A router must have only one address to allow it to be uniquely identified

**Answer:** B

#### NEW QUESTION 91

Which of the following user interface sessions are accessible through Telnet and Secure Shell (SSH) on the Alcatel-Lucent 7750 SR and 7450 ESS?

- A. Graphic User Interface (GUI).
- B. Node Management Terminal Interface (NMTI).
- C. Command Line Interface (CLI).
- D. All of the above

Answer: C

**NEW QUESTION 94**

What happens next after an incoming packet is de-encapsulated from the Layer 2 frame in an Alcatel-Lucent 7750 router?

- A. The IP datagram is encapsulated in the appropriate Layer 2 frame by the MD
- B. The IP datagram passes through the switch fabric to reach the egress IO
- C. The IP datagram is passed to the IO
- D. A lookup is performed in the FIB to determine the egress interface

Answer: C

**NEW QUESTION 97**

Given a network address of 116.14.0.0, which of the following is a valid host address when using the subnet mask 255.255.255.240?

- A. 116.14.17.16
- B. 116.14.17.31
- C. 116.14.17.192
- D. 116.14.17.189

Answer: D

**NEW QUESTION 100**

What is the sequence of events for a client to receive an IP address from the server in the DHCP?

- A. Discover, offer, request, acknowledgement
- B. Request, offer, discover, acknowledgement
- C. Discover, request, offer, acknowledgement
- D. Request, acknowledgement, discover, offer

Answer: A

**NEW QUESTION 105**

Which of the following statements is TRUE regarding the development of the OSI Reference Model?

- A. OSI was developed as an alternative, open standard to IBM's SNA mode
- B. OSI protocols were no longer used after TCP/IP was developed
- C. OSI model is much simpler than TCP/IP
- D. OSI model is maintained exclusively by the IET

Answer: A

**NEW QUESTION 106**

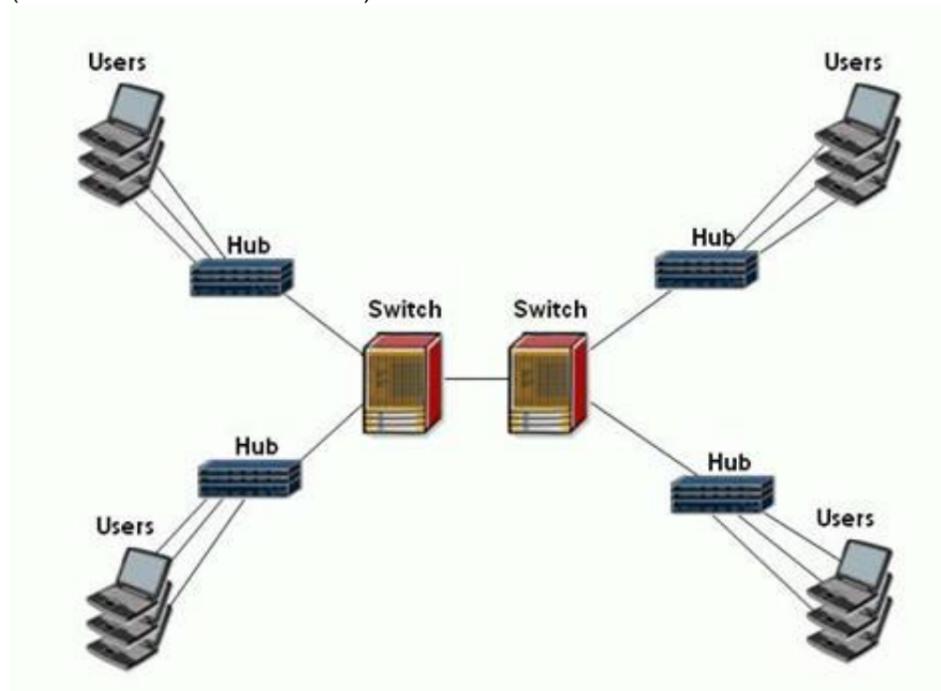
How many DS-3 frames can be transported in an OC-3 frame?

- A. 1
- B. 2
- C. 3
- D. 4

Answer: C

**NEW QUESTION 107**

(Click the Exhibit Button below)



An Ethernet Local Area Network (LAN) consists of the

following components:

Four 24-port hubs & Two 16-port switches

How many broadcast domains are on this LAN?

- A. 1
- B. 2
- C. 5
- D. 32

**Answer:** A

#### NEW QUESTION 112

Which statement accurately explains the purpose of the TCP protocol and what it provides?

- A. The primary purpose of TCP is to provide reliable communications between application service
- B. The primary purpose of TCP is to provide unreliable communications between application services
- C. The primary purpose of TCP is to provide IP routing between application service
- D. The primary purpose of TCP is to define the correct format for the application layer such as JPEG or HTM

**Answer:** A

#### NEW QUESTION 117

One of the tasks of the boot options file (BOF) is to:

- A. Specify authorization information to control access to the route
- B. Define an IP address for the CPM Ethernet port
- C. Initialize the hardware
- D. Set the date/time for the system

**Answer:** B

#### NEW QUESTION 119

How do protocols such as ATM and Frame-Relay support differentiating multiple customers or traffic types on the same physical wire?

- A. ATM and Frame-Relay are circuit switched protocols and use Virtual Circuits to create logical separation of traffic
- B. ATM and Frame-Relay are point-to-point protocols and do not support different customers or traffic type on the same physical wire
- C. ATM and Frame-Relay are circuit switched protocols and use VLAN's to create logical separation of traffic
- D. ATM and Frame-Relay are circuit switched protocols and use IP Header information to create logical separation of traffic

**Answer:** A

#### NEW QUESTION 121

A Class C network is defined by a:

- A. 32-bit network prefix
- B. 24-bit network prefix
- C. 16-bit network
- D. 8-bit network

**Answer:** B

#### NEW QUESTION 125

What must occur for a LAG to become operational?

- A. There must be multiple ports assigned to the LAG
- B. All ports in the LAG must be configured with the same characteristics
- C. Auto-negotiation must be enabled on all ports in the LAG
- D. All of the above

**Answer:** B

#### NEW QUESTION 129

What problems was Spanning Tree Protocol (STP) primarily designed to solve? (Choose two):

- A. Providing path redundancy
- B. Preventing loops
- C. Handling collisions
- D. Allowing flooding of multicast traffic

**Answer:** AB

#### NEW QUESTION 134

Which of the following is a private IP network address reserved by the IANA?

- A. 172.30.0.0/16

- B. 192.100.0.0/24
- C. 172.0.0.0/16
- D. 169.254.0.0/16
- E. 11.0.0.0/8

**Answer:** A

#### NEW QUESTION 135

What information is used to separate VLANs on a VLAN trunk that connects multiple VLANs?

- A. VLAN tag
- B. IP Header
- C. FC
- D. Priority Value

**Answer:** A

#### NEW QUESTION 140

A network administrator is creating a subnet plan for the address 172.16.0.0/16. The network must support 459 hosts on each subnet while providing the maximum number of subnets. What subnet mask should be used?

- A. 255.255.0.0
- B. 255.255.128.0
- C. 255.255.224.0
- D. 255.255.254.0

**Answer:** D

#### NEW QUESTION 143

Which technologies can be used with Ethernet switches to achieve redundancy? (Choose two)

- A. LAG
- B. OSPF
- C. RIP
- D. STP

**Answer:** AD

#### NEW QUESTION 147

Which of the following statements best describes ARPANET?

- A. ARPANET was an early packet switched network initially connecting 4 sites (Stanford, UC Santa Barbara, UCLA, and U of Utah).
- B. The mission of ARPANET was to connect packet switched networks and other diverse networks, making an international network of networks.
- C. ARPANET connected sites spread around the Hawaiian Islands to a central time-sharing computer on the University of Hawaii campus.
- D. ARPANET was based on the use of TCP/IP to interconnect diverse systems.

**Answer:** A

#### NEW QUESTION 150

Which of the following is a characteristic of Port Address Translation?

- A. Resolves a MAC address given a specific IP address
- B. Allows a single public IP address to represent multiple private IP addresses simultaneously
- C. Maps a private address to a well-known port number
- D. Provides a one-to-one mapping from a private to a public address

**Answer:** B

#### NEW QUESTION 153

What is available for auto completion of commands within the CLI on the Alcatel-Lucent 7750 SR Service Router?

- A. Type the first letters of the command, then press Ctrl C
- B. Type the first letters of the command, then press Esc
- C. Type the first letters of the command, then press Tab
- D. Type the first letters of the command, then type?

**Answer:** C

#### NEW QUESTION 158

Which of the following statements is TRUE about ICMP?

- A. An IP datagram is encapsulated within an ICMP header
- B. ICMP messages can only be generated by a router
- C. ICMP messages are encapsulated within an IP datagram
- D. ICMP guarantees delivery of a message

Answer: C

#### NEW QUESTION 162

When entering a command on the Alcatel-Lucent 7750 SR from the Command Line Interface (CLI), what would you use to list all the options for the command?

- A. ?
- B. tab character
- C. space character
- D. info

Answer: A

#### NEW QUESTION 164

Which Ethernet frame field does the receiver use to verify the integrity of the received bits?

- A. Destination address
- B. Frame check sequence
- C. Preamble
- D. Length field

Answer: B

#### NEW QUESTION 166

The TiMOS-m.n.Y.Z software image file is software that:

- A. Contains all the components required to configure and run protocols on the Alcatel-Lucent 7750 SR/7450 ES
- B. Loads the router configuration
- C. Transfers the router configuration from the router to the network management system
- D. Loads the router software image

Answer: A

#### NEW QUESTION 169

What bit pattern identifies the network address in the subnet mask?

- A. A string of 1s
- B. A string of 0s
- C. A string of alternating 1s and 0s
- D. There is no specific bit pattern to identify the network address

Answer: A

#### NEW QUESTION 173

Which organization eventually became the standards body for IP and related protocols?

- A. IEEE
- B. IETF
- C. NSFNET
- D. ITU-T
- E. APNIC

Answer: B

#### NEW QUESTION 177

Complete the following sentence: The introduction of the subnet address added another:

- A. Layer of hierarchy in the addressing structure
- B. Class to the classful addressing system
- C. 16-bit number to accompany the IP address
- D. 4,294,967,296 addresses to the IP address space

Answer: A

#### NEW QUESTION 180

What is the effective maximum rate of data transmission on a 10 Mbps full-duplex Ethernet link?

- A. 5 Mbps
- B. 10 Mbps
- C. 15 Mbps
- D. 20 Mbps

Answer: D

#### NEW QUESTION 183

Which of the following command lines would be found in a list of commands designed to permit only certain type of traffic from exiting router RTR-A to router RTR-B?

- A. RTR-A>config>router>if>ingress# filter ip 1
- B. RTR-B>config>router>if>ingress# filter ip 1
- C. RTR-B>config>router>if>egress# filter ip 1
- D. RTR-A>config>router>if>egress# filter ip 1

**Answer: D**

#### NEW QUESTION 184

What is the preference value in the routing table used for?

- A. It indicates the preferred egress interfac
- B. It differentiates between multiple routes to a destination learned by the same protoco
- C. It differentiates between multiple routes to a destination learned by different routing protocol
- D. It is used to differentiate local routes from remote route

**Answer: C**

#### NEW QUESTION 187

Which of the following is a characteristic of a subnet created with a /31 prefix?

- A. There is no broadcast address on the network
- B. The address can only be used as a loopback address
- C. This specifies a single host address
- D. A /31 prefix is not supported on the SR and ESS platform

**Answer: A**

#### NEW QUESTION 191

What is the name for an organization that provides Internet services to its customers?

- A. A large corporation
- B. An ISP
- C. A home based business
- D. A content provider

**Answer: B**

#### NEW QUESTION 194

What kind of information can a Dynamic Host Configuration Protocol (DHCP) client receive?

- A. Details of the configuration settings of each router on the network
- B. A list of other DHCP clients
- C. IP addresses and their lease time
- D. Server time information

**Answer: C**

#### NEW QUESTION 199

Which of the following best describes the operation of the Media Dependent Adapter (MDA)?

- A. The MDA contains the flexible fast path complex used for forwarding data
- B. Excess data is discarded by the MDA and the remaining data forwarded for QoS processing
- C. The MDA buffers data and applies Quality of Service (QoS) to classify and treat the data appropriately
- D. The MDA converts data from its incoming physical format into an internal format and provides some minimal buffering

**Answer: D**

#### NEW QUESTION 203

Which of the following is not supported on the Alcatel-Lucent 7450 ESS?

- A. Support for IPv6.
- B. Support for PO
- C. Upgrade path to the Alcatel-Lucent 7750 S
- D. Support for IS-IS

**Answer: C**

#### NEW QUESTION 205

Which of the following are protocols belonging to the OSI suite of protocols? (Choose two)

- A. OSPF
- B. BGP

- C. X.500
- D. IS-IS
- E. Ethernet

**Answer:** CD

**NEW QUESTION 208**

Which of the following type of addressing scheme delivers information from one source to all devices who are members of a specific group?

- A. Anycas
- B. Multicas
- C. Broadcas
- D. Unicas

**Answer:** B

**NEW QUESTION 212**

When a device in an IP network receives an echo request message that is destined for itself, it then:

- A. Estimates the round trip-tim
- B. Generates an echo repl
- C. Calculates the data loss statistic
- D. Verifies the data field of the messag

**Answer:** B

**NEW QUESTION 215**

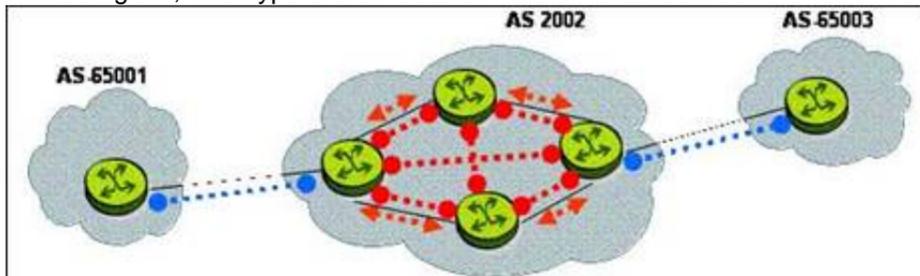
Which of the following describes a static default route?

- A. A routing entry, included in the RIB by default, that forwards packets with an unknown destination to the CPM for inspectio
- B. A manual entry used when the destination address of a network is not specifically listed in the routing tabl
- C. A manual entry that matches a specific /32 host address using the least cost to the destinatio
- D. A default entry in the FIB used when forwarding multicast and broadcast packet

**Answer:** B

**NEW QUESTION 217**

In the diagram, what type of BGP session is established between the routers of AS 2002?



- A. IGP
- B. IBGP
- C. EBGp
- D. EGP
- E. BGPcannotbe run between routers in the same A

**Answer:** B

**NEW QUESTION 218**

What is the function of a Routing Table Manager (RTM)?

- A. To find the best path to the destination network and install it in the routing table - based on the metrics of the routing protoco
- B. To provide a CLI interface that allows the operator to configure the dynamic routing protocol on the route
- C. To choose the route with the lowest preference and install it in the routing table - based on the routing protocol preference value
- D. To provide a CLI interface that allows the network operator to install static routes in the routing tabl

**Answer:** C

**NEW QUESTION 223**

Where would you expect to find a P router in a service provider's network? A. At the edge of the provider's network facing the customer.

- A. At the edge of the customer's network facing the provide
- B. In the core of the providers networ
- C. On the customer premise

**Answer:** C

**NEW QUESTION 225**

In regards to the Alcatel-Lucent 7750 SR-12 router, how many of the front access card slots are dedicated for Control Processors?

- A. 1
- B. 2
- C. 7
- D. 10

**Answer: B**

**NEW QUESTION 226**

Which statement best describes an SDP?

- A. Service Delivery Points are defined on the service provider network side and used to bind the service to an MPLS transport tunne
- B. Many services can be bound to a single SD
- C. Service Delivery Points are defined on the service provider access side and used to bind the connection of the service to CE devic
- D. Many services can be bound to a single SD
- E. Service Delivery Points are defined on the service provider network side and used to bind the service to an MPLS transport tunne
- F. Only one service can be bound to a single SD
- G. Service Delivery Points are defined on the service provider access side and used to bind the service to CE devic
- H. Only one service can be bound to a single SD

**Answer: A**

**NEW QUESTION 230**

Which of the following are accurate statements about the PE device in a service providers MPLS network? (Select three)

- A. A PE router only connects to CE device
- B. A PE router only connects to P router
- C. A PE router connects to at least one P route
- D. A PE router connects to at least one CE devic
- E. PE routers support many different interface types connecting to CE device
- F. PE routers only support Ethernet interfaces connecting to the C

**Answer: CDE**

**NEW QUESTION 234**

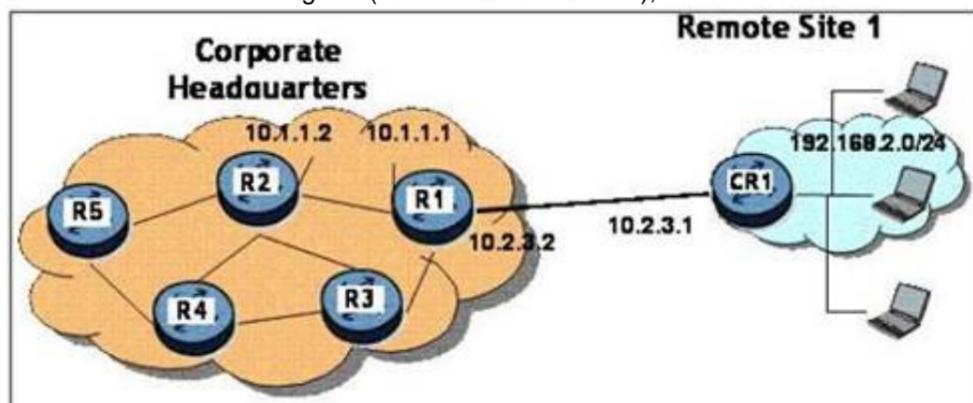
Which of the following SAP types can be associated to a VPWS? (Choose 3)

- A. Ethernet
- B. ATM
- C. Token Ring
- D. Frame Relay

**Answer: ABD**

**NEW QUESTION 238**

Based on the network diagram (click the Exhibit Button),



what are the prefix, mask, and next-hop used on CR1 to setup a default static route to R1?

- A. 0.0.0.0/0 next-hop 10.2 3.2
- B. 0.0.0.0/32 next-hop 10.2.3.2
- C. 10.2.3.2/32 next-hop 0.0.0.0/0
- D. 0.0.0.0/0 next-hop 192.168.2.0

**Answer: A**

**NEW QUESTION 243**

Public IP addresses are globally coordinated by which organization?

- A. Network Solutions INC
- B. IANA
- C. IETF
- D. ITU-T
- E. IEEE

Answer: B

**NEW QUESTION 247**

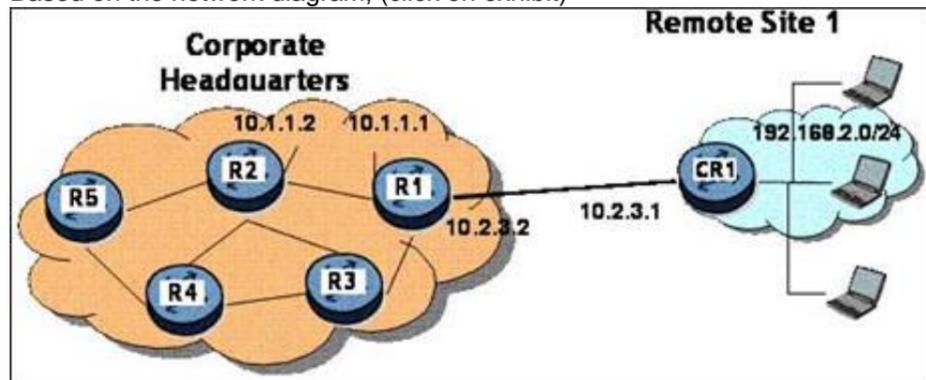
A VPWS service maintains a MAC Forwarding Database (FDB) for Ethernet SAPs.

- A. True
- B. False

Answer: B

**NEW QUESTION 252**

Based on the network diagram, (click on exhibit)



what is the command to use on CR1 to setup a default static route to R1?

- A. config router static-route 0.0.0.0/0 next-hop 10.2.3.2
- B. config router static-route 0.0.0.0 next-hop 10.2.3.2
- C. config router static-route 10.2.3.2 next-hop 0.0.0.0/0
- D. config router default-route 10.2.3.2
- E. config router static-route 0.0.0.0 next-hop 192.168.2.0

Answer: A

**NEW QUESTION 256**

How is Ethernet II different from Ethernet 802.3?

- A. Ethernet II can be used on broadcast networks where as 802.3 was designed for point-to-point network
- B. Ethernet II identifies its payload type where as 802.3 indicates the frame length
- C. Ethernet II identifies its frame length while 802.3 indicates the payload type
- D. Ethernet II and Ethernet 802.3 are two different names for the same protocol

Answer: B

**NEW QUESTION 261**

In an MPLS network, which device is responsible for taking an unlabeled packet and encapsulating it with an MPLS label?

- A. Ingress Label Edge Router
- B. Egress Label Edge Router
- C. Label Switching Router
- D. Next Hop Router

Answer: A

**NEW QUESTION 264**

Which of the following protocols belongs to the OSI suite of protocols? (Choose 2)

- A. OSPF
- B. BGP
- C. X.500
- D. IS-IS
- E. Ethernet

Answer: CD

**NEW QUESTION 265**

Which answer reflects the correct message sequence used when a source attempts to ping a destination for which it has no Address Resolution Protocol (ARP) cache entry?

- A. ICMP echo request, ARP request, ARP reply, ICMP echo reply
- B. ARP request, ARP reply, ICMP echo request, ICMP echo reply
- C. ICMP echo request, ICMP echo reply, ARP request, ARP reply
- D. ICMP echo request
- E. ARP reply, ARP request, ICMP echo reply

Answer: B

**NEW QUESTION 268**

Why does UDP have less overhead than TCP?

- A. UDP has less overhead because it is only used for transmission of small amounts of data
- B. UDP has less overhead than TCP because there is no checksum field in UDP
- C. UDP overhead is the same as TCP because it uses the same fields in the header
- D. UDP has less overhead because there is no requirement for acknowledgment or retransmission

Answer: D

**NEW QUESTION 271**

Which device is responsible for removing the MPLS label before the packet reaches the CE device?

- A. The CE device removes the MPLS label
- B. The last LSR on the LSP removes the MPLS label
- C. MPLS labels are not removed until they reach the final destination
- D. The egress LER removes the MPLS label

Answer: D

**NEW QUESTION 274**

What does a VPLS solution look like from a customer's perspective?

- A. To the customer, it appears as if all sites are directly connected by a single cable
- B. To the customer, it appears as if all sites are connected through a single switched LAN
- C. To the customer, it appears as if all sites are connected through a single route
- D. To the customer, it appears as if all sites are connected through a series of private point-to-point connections

Answer: B

**NEW QUESTION 279**

Which of the following are functions of VLANs? (Choose 2)

- A. VLANs can group ports on multiple switches into unified broadcast domains
- B. VLANs allow multiple Ethernet switches to be connected in a single collision domain
- C. VLANs can separate ports on the same switch into different broadcast domains
- D. VLANs can group ports on the same switch into different collision domains

Answer: AC

**NEW QUESTION 283**

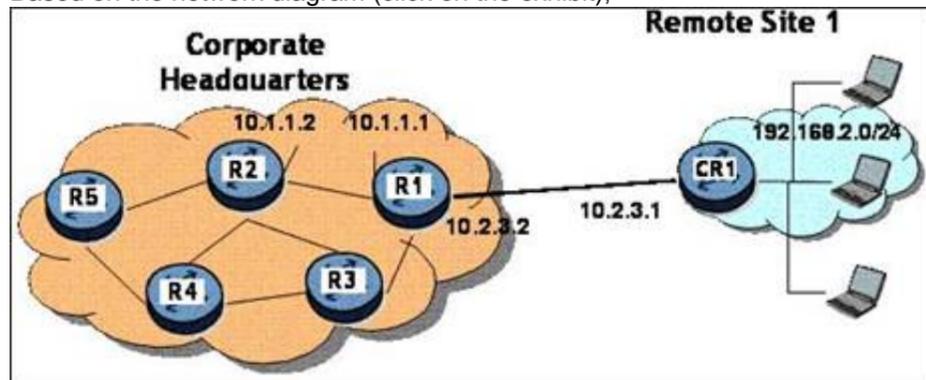
How does the Transport Layer identify which application is to receive the data?

- A. By using the IP address of the packet
- B. By using the MAC address of the frame
- C. By using port number
- D. By using Connection Identifier Numbers (CINs).

Answer: A

**NEW QUESTION 286**

Based on the network diagram (click on the exhibit),



What is the command to use on R1 to setup a static route to the network on CR1

- A. config router static-route 192.168.2.0/24 next-hop 10.2.3.2
- B. config router static-route 10.2.3.1 next-hop 192.168.2.0
- C. config router static-route 192.168.2.0/24 next-hop 10.2.3.1
- D. config router static-route 10.2.3.2 next-hop 192.168.2.0

Answer: C

**NEW QUESTION 288**

Which field in the TCP header is used by the receiver to indicate how many segments it can receive?

- A. Checksum

- B. SYN
- C. Destination port
- D. Window size
- E. MTU

**Answer:** D

#### NEW QUESTION 290

What capability of TCP/IP allows two hosts to have multiple TCP sessions to each other simultaneously?

- A. The combination of IP source and destination address and TCP source and destination port uniquely identifies each session
- B. The combination of IP source and destination address and the IP protocol field uniquely identifies each session
- C. The hosts can identify the sessions using each other's MAC address
- D. Two hosts can not have multiple TCP sessions simultaneously

**Answer:** A

#### NEW QUESTION 291

What happens in a TCP session if a segment is not acknowledged within a certain time period?

- A. The missing segment is retransmitted
- B. The TCP session is terminated
- C. The sender sends the next segment
- D. An ICMP destination unreachable message is sent

**Answer:** A

#### NEW QUESTION 293

What must the sender do when it receives a window size of 0 from the receiver?

- A. Stop transmitting
- B. Terminate the TCP session
- C. Send the next segment
- D. Retransmit the previous segment

**Answer:** A

#### NEW QUESTION 294

Which of the following information can be seen within the FILE context of the SR 7x50? (Choose 2)

- A. File sizes
- B. Port statistics
- C. Log-id 100 files
- D. T1MOS image files

**Answer:** AD

#### NEW QUESTION 299

Host A receives a TCP SYN/ACK segment. What does this signify?

- A. Host A has received a request to establish a TCP session
- B. Host A has received a request to close a TCP session
- C. A TCP session is now established to host
- D. The TCP session has been terminated due to a timeout

**Answer:** C

#### NEW QUESTION 300

Which of the following describes the normal sequence of events in the forming of an OSPF adjacency?

- A. Hello exchange, DB descriptor exchange, Link state requests and updates
- B. DB descriptor exchange, Link state requests and updates, Hello exchange
- C. Link state requests and updates, Hello exchange, DB descriptor exchange
- D. Hello exchange, Link state requests and updates, DB descriptor exchange

**Answer:** A

#### NEW QUESTION 304

Which of the following is characteristic of a static route?

- A. Responds in real time to network failure
- B. Can only be used for routing within an autonomous system
- C. Uses a hop-count metric to determine the best route to a network
- D. Explicitly defines the next hop based on operator input

Answer: D

#### NEW QUESTION 307

Which transport protocol and port number is used by BGP to establish and maintain a peering session with other BGP speakers?

- A. TCP port 179.
- B. UDP port 179.
- C. TCP port 22.
- D. UDP port 22.

Answer: A

#### NEW QUESTION 312

Which of the following best describes an autonomous system?

- A. An autonomous system is a network or group of networks operating under one administrative authority
- B. An autonomous system is another term for the collection of routers that make up the Internet
- C. An autonomous system is a network or group of networks from many organizations running different IGP routing protocols, but all running BGP
- D. An autonomous system is a loosely defined term that can refer to any organization that has a connection to the Internet

Answer: A

#### NEW QUESTION 315

The sequence numbers are used by TCP to ensure that the data received is provided to the application in the correct order.

- A. TRUE
- B. FALSE

Answer: A

#### NEW QUESTION 319

Which of the following are correct statements about MPLS labels (Choose three)?

- A. A series of labels from one LER to another LER represent a logical tunnel known as an LSP
- B. Labels used for an LSP may be static but are usually signaled dynamically with an MPLS label signaling protocol
- C. Labels are locally significant to the MPLS router which means it's possible for two routers on the LSP path to use the same label
- D. Labels are globally significant to the MPLS network which means all labels on the LSP path must be unique
- E. Labels used for an LSP must be statically assigned by the service provider

Answer: ABC

#### NEW QUESTION 322

Which of the following statements is TRUE regarding IP addressing?

- A. Classful IP addressing provides hierarchy based on variable subnet mask
- B. Classless IP addresses provide hierarchy based on a variable length subnet mask
- C. Classless IP addresses provide hierarchy based on fixed subnet masks of /24, /16 and /8.
- D. IP addresses provide hierarchy based on the country code and regional identifier

Answer: B

#### NEW QUESTION 325

You need to implement an interior gateway routing protocol for your network that supports scalability, fast convergence and VLSM. Which routing protocol would best serve your needs?

- A. RIPv1.
- B. RIPv2.
- C. OSPF
- D. BGP
- E. Static route

Answer: C

#### NEW QUESTION 327

How does the Transport Layer identify which application is to receive the data?

- A. Using the IP address of the packet
- B. Using the MAC address of the frame
- C. Using port number
- D. Using Connection Identifier Numbers (CIN).

Answer: C

#### NEW QUESTION 330

Which of the following applications would be likely to use UDP?

- A. Real-time audio application, such as VoIP
- B. Web browser
- C. Email application
- D. Telnet

Answer: A

**NEW QUESTION 331**

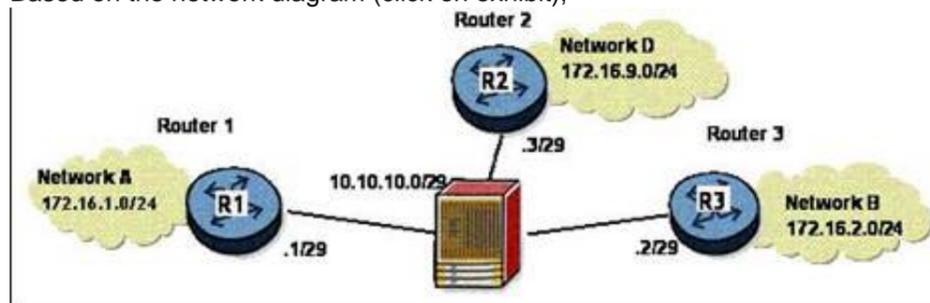
Which bit pattern identifies the network address in the subnet mask?

- A. A string of consecutive 1's
- B. A string of consecutive 0's
- C. A string of alternating 10's
- D. The network address is determined by masking the source address with a port's ifIndex binary representatio

Answer: A

**NEW QUESTION 333**

Based on the network diagram (click on exhibit),



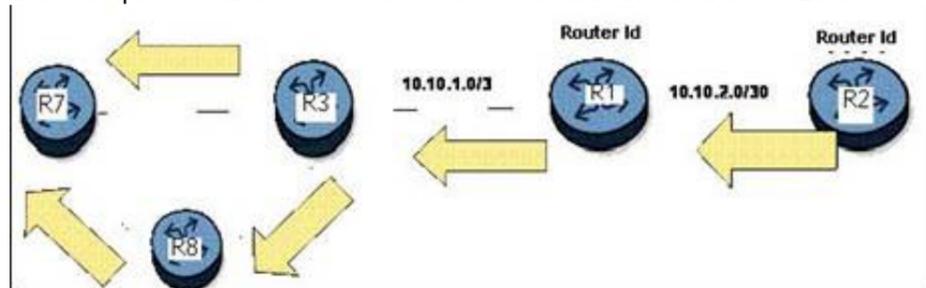
Router 1 installs the network D in its routing table, based on a dynamic routing update from Router 2. Which of the following describes the information that will be installed in the routing table?

- A. 172.16.9.0/24 next-hop 10.10.10.1
- B. 172.16.9.0/24 next-hop 10.10.10.2
- C. 172.16.9.0/24 next-hop 10.10.10.3
- D. Any of the above

Answer: C

**NEW QUESTION 337**

In the diagram, R3 receives an LSA with sequence number 112 from R7 and installs it in its link state database. 10 ms. Later it receives a copy of the same LSA with a sequence number of 111 from R1. What does R3 do with the LSA from R1?



- A. R3 discards the LSA received from R1 and sends a copy of the LSA from its link state base to R1.
- B. R3 installs the LSA received from R1 in its link state database and floods a copy to its neighbor
- C. R3 discards the LSA received from R1 and sends an ACK to R1.
- D. R3 installs the LSA received from R1 in its link state database, sends an ACK to R1 and floods a copy to its neighbor

Answer: A

**NEW QUESTION 342**

A CE device has a physical connection to which device in the service providers MPLS network?

- A. CE always connects to a PE route
- B. CE always connects to a P route
- C. CE always connects to another CE device
- D. The CE does not connect to the service provider network

Answer: A

**NEW QUESTION 344**

What are some of the characteristics of BGP? Choose three

- A. BGP is an exterior gateway protoco
- B. BGP routing is based on distance vecto
- C. BGP sends periodic updates to its neighbor

D. A router running BGP protocol needs an Autonomous system number

**Answer:** ABD

**NEW QUESTION 346**

Which of the following statements are TRUE about the Alcatel-Lucent SR 7750? (Choose 2)

- A. It can boot without a compact flash in the CF3 slot
- B. It cannot boot without a compact flash in the CF3 slot
- C. It can operate without a compact flash in the CF3 slot once it has booted
- D. It cannot operate without a compact flash in the CF3 slot once it has booted

**Answer:** BC

**NEW QUESTION 351**

The 201.148.26.0/24 network is subnetted using a /26 mask. How many subnets and host addresses will be obtained with this mask?

- A. 4 subnets, 64 hosts
- B. 64 subnets, 4 hosts
- C. 4 subnets, 62 hosts
- D. 64 subnets, 2 hosts
- E. 6 subnets, 30 hosts

**Answer:** C

**NEW QUESTION 354**

What problem was Spanning Tree Protocol (STP) primarily designed to solve?

- A. Inability to perform switch to switch redundancy using multiple connections at Layer 2.
- B. Missing protocol field in Ethernet II required to identify redundancy protocols at Layer 2.
- C. Missing packet sequencing in Layer 2 Ethernet required to re-order packets on arrival
- D. Inability to forward multicast frames without a routing protocol

**Answer:** A

**NEW QUESTION 356**

Which of the following is NOT a field in a TCP header?

- A. Source port
- B. MTU
- C. Sequence number
- D. Acknowledgement number
- E. Window size

**Answer:** B

**NEW QUESTION 358**

Which of the following fields is not a field in the TCP header used for the establishment and termination of a TCP connection?

- A. TTL
- B. ACK
- C. FIN
- D. SYN

**Answer:** A

**NEW QUESTION 361**

How does LDP select the path used for an LSP?

- A. LDP monitors the available bandwidth on all links and signals the LSP based on this information
- B. LDP uses the shortest hop-count between two endpoints for the LSP
- C. LDP must be configured hop-by-hop by the service provider
- D. LDP follows the path chosen by the IGP

**Answer:** D

**NEW QUESTION 364**

Which of the following statements is FALSE when describing a Virtual Private LAN Service?

- A. A VPLS emulates a virtual switch or bridge
- B. The VPLS performs MAC learning on MAC addresses seen from SAPs and SDPs
- C. When a VPLS receives a frame with an unknown MAC destination, the frame will be dropped
- D. MAC addresses are maintained in a MAC address forwarding database (FDB).

**Answer:** C

**NEW QUESTION 366**

From the CE perspective, how does a VPLS operate?

- A. A VPLS operates as if 2 sites are directly connected by a single cable
- B. A VPLS operates as if multiple sites are connected through a single switched LAN
- C. A VPLS operates as if multiple sites are connected through a single route
- D. A VPLS operates as if multiple sites are connected through a series of private point-to-point routed connections

**Answer: B**

**NEW QUESTION 371**

Which of the following are FALSE statements about the OSPF routing protocol? Choose two.

- A. OSPF is a link state protocol with fast convergence
- B. OSPF supports hierarchy with multiple areas
- C. The default metric for OSPF is hop count
- D. OSPF does not support VLS
- E. OSPF supports neighbor authentication

**Answer: CD**

**NEW QUESTION 372**

If a customer requires a point-to-point layer 2 VPN service between two locations which VPN service would be typically suited for this customer?

- A. Virtual Private Wire Service
- B. Virtual Private LAN Service
- C. Virtual Private Routed Network
- D. Virtual Private Dark Fiber Service

**Answer: A**

**NEW QUESTION 375**

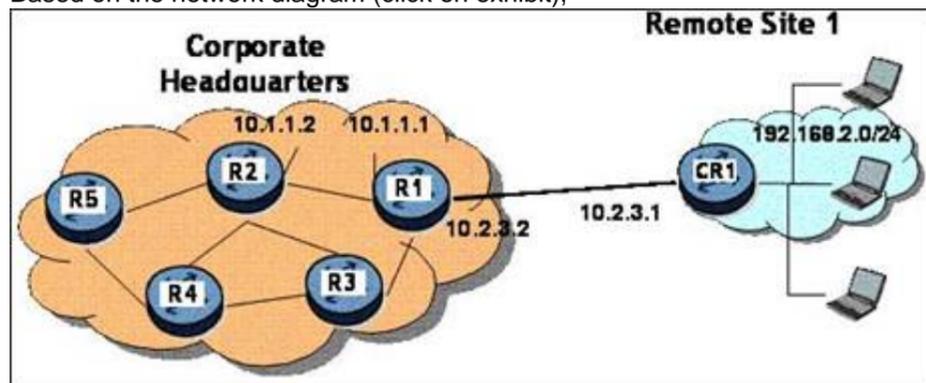
Which of the following mediums can be used in a VPWS when defining SAPs (Select three)?

- A. Ethernet
- B. ATM
- C. Frame Relay
- D. Token Ring

**Answer: ABC**

**NEW QUESTION 380**

Based on the network diagram (click on exhibit),



R2 wants to connect to the networks behind CR1 using a static route. What is the correct syntax given the choices below? R1 has a valid static route defined for networks behind CR1.

- A. config router static-route 192.168.2.0/24 next-hop 10.2.3.2
- B. config router static-route 192.168.2.0/24 next-hop 10.1.1.1
- C. config router static-route 192.168.2.0/24 next-hop 10.2.3.1
- D. config router static-route 192.168.2.0/24 next-hop 10.1.1.2
- E. none of the above

**Answer: B**

**NEW QUESTION 382**

Multiple SAPs may be defined on the same physical port and may be used for different services.

- A. True
- B. False

**Answer: A**

**NEW QUESTION 387**

Which two protocols are used for the dynamic signaling of MPLS labels (Choose two)?

- A. RSVP-TE
- B. CSPF
- C. PNNI
- D. LDP

Answer: AD

**NEW QUESTION 392**

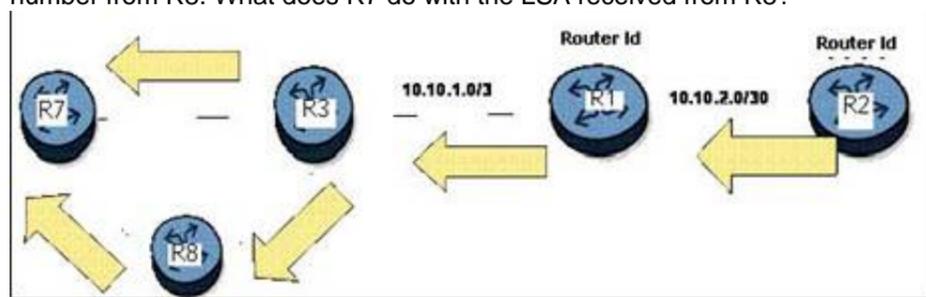
TCP is sending data in 5 segments with SEQ numbers 27000, 27500, 28000, 28500, and 29000 respectively. During transmission, the segment with SEQ=28500 is dropped in the network. How does TCP handle this situation?

- A. The receiving end station sends an ACK flag with SEQ=28000 to indicate it has received a segment out of order
- B. The receiving station sends a NACK frame with SEQ=28500 requesting that the frame be retransmitted
- C. Once the receiver's window is full
- D. TCP assembles the payload and determines that SEQ=28500 is missing
- E. At this point, the receiver sends the RST flag with SEQ=28500 to Request Single Transmission of the missing segment
- F. TCP will collect the segments and forward them to the application layer where the SEQ numbers will be processed and a retransmit request will occur for the entire packet

Answer: C

**NEW QUESTION 395**

In the diagram, R7 receives a new LSA from R3 and installs it in its link state database. 10 ms. later it receives another copy of the LSA with the same sequence number from R8. What does R7 do with the LSA received from R8?



- A. R7 silently discards the LSA received from R8.
- B. R7 installs the LSA received from R8 in its link state database and floods a copy to its neighbor
- C. R7 discards the LSA received from R8 and sends an ACK to R8.
- D. R7 installs the LSA received from R8 in its link state database, sends an ACK to R8 and floods a copy to its neighbor

Answer: C

**NEW QUESTION 396**

What is the basic unit of framing in SDH and the bit rate for transmission?

- A. STM-1 with a bit rate of 1.544 Mbit/s
- B. STM-1 with a bit rate of 2.048 Mbit/s
- C. STM-1 with a bit rate of 51.84 Mbit/s
- D. STM-1 with a bit rate of 155.52 Mbit/s

Answer: D

**NEW QUESTION 397**

Which of the following statements is TRUE regarding a VPWS service?

- A. VPWS is a point-to-multipoint service
- B. VPWS requires MAC learning in order to forward frames to the correct destination
- C. A Spanning Tree Protocol must be enabled when deploying a VPWS
- D. VPWS treats multicast traffic similar to unicast traffic

Answer: D

**NEW QUESTION 401**

Which of the following best describes the function of the service label?

- A. Customer traffic is encapsulated with a service label by the ingress PE
- B. The service label identifies which transport tunnel to use
- C. Customer traffic is encapsulated with a service label by the egress PE
- D. The service label identifies which transport tunnel to use
- E. Customer traffic is encapsulated with a service label by the egress PE
- F. The service label identifies the specific service the data belongs to
- G. Customer traffic is encapsulated with a service label by the ingress PE
- H. The service label identifies the specific service the data belongs to

Answer: D

**NEW QUESTION 406**

What metric does a link state protocol use to choose the best path to a destination network?

- A. Link bandwidth
- B. Round trip tim
- C. Hop coun
- D. Route preferenc

**Answer:** A

#### NEW QUESTION 408

Which protocol is used by ping to verify IP network reachability? A. DCHP

- A. ICMP
- B. ARP
- C. NAT

**Answer:** B

#### NEW QUESTION 413

What operation is performed by an LSR when it receives an MPLS labeled packet?

- A. The LSR refers to its routing table and forwards the packet to the next LSR or LER without altering the MPLS labe
- B. The LSR refers to its MPLS label table, swaps the label and forwards the packet to the next LSR or LE
- C. The LSR refers to its MPLS label table forwards the packet to the next LSR or LER without altering the MPLS labe
- D. The LSR refers to its MPLS label table, pops the label and forwards the packet to the next IP route

**Answer:** B

#### NEW QUESTION 416

What are the tasks of a Routing Table Manager (RTM)? (Choose 2)

- A. To select the best route from among multiple routing protocol
- B. To select the best route using the metric as criteri
- C. To send its best route to all its directly connected neighbor
- D. To install its best route in the routing tabl

**Answer:** AD

#### NEW QUESTION 418

Which of the parameters in Hello messages exchanged between two OSPF neighbors must be the same to keep the adjacency alive in OSPF? (Choose four.)

- A. Interface MT
- B. Area I
- C. Authentication passwor
- D. Hello interva
- E. Dead interva
- F. Router priorit

**Answer:** BCDE

#### NEW QUESTION 423

Which application below would be likely to use UDP?

- A. Real-time audio application such as Vol
- B. Web browse
- C. Email applicatio
- D. Telne

**Answer:** A

#### NEW QUESTION 426

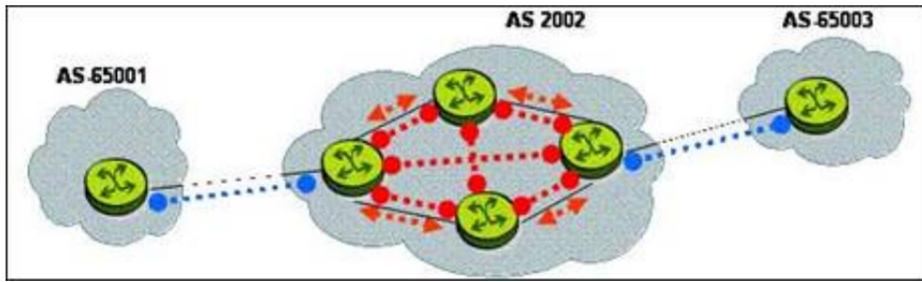
Host A is transmitting data to host B on a TCP connection. What is the purpose of the ACK sent by host B?

- A. The ACK tells the host A that host B wishes to establish a sessio
- B. The ACK tells host A the sequence number of the segment that was just received by host
- C. The ACK tells host A the sequence number of the next segment that host B expects to se
- D. The ACK is flow control from host B and tells host A to reduce its transmission rat

**Answer:** C

#### NEW QUESTION 428

In the diagram, what type of BGP session is established between the routers of AS 65001 and AS 2002?



- A. IGP
- B. IBGP
- C. EBGP
- D. EGP
- E. BGP cannot be run between routers in different AS

Answer: C

**NEW QUESTION 429**

What is the purpose of a broadcast address?

- A. Provides an address that refers to all the devices in a given network
- B. Provides an address that refers to a specific group of devices in a given network
- C. Provides an address that refers to a group of devices with the same IP addresses in different Layer 2
- D. Provides an address that refers to a single device on a given network

Answer: B

**NEW QUESTION 431**

Which of the following best describes a repeater?

- A. A passive device simply used to connect two or more cable
- B. It does not generate or amplify any signal
- C. A device that receives and retransmits a signal out its ports but does not do any Layer 2 analysis of the data
- D. A device that receives a signal and based on the Layer 2 destination address, makes a decision on which ports the signal should be retransmitted
- E. A device that receives a signal and based on the Layer 3 destination address makes a decision on which ports the signal should be retransmitted

Answer: B

**NEW QUESTION 433**

Which of the following statements are TRUE regarding SONET/SDH? (Choose 2)

- A. They are deployed over point-to-point physical topologies to allow sub-50ms convergence
- B. An ADM (Add Drop Multiplexer) is used to connect various sites to the infrastructure
- C. IP datagrams are encapsulated in a PPP frame for transmission over an SDH network,
- D. IP datagrams are encapsulated in an Ethernet frame for transmission over a SONET network

Answer: BC

**NEW QUESTION 434**

How does a VPRN service avoid the problem overlapping IP addresses from different customers?

- A. You cannot have overlapping IP addresses
- B. The service provider must ensure that its customers are all using discrete IP address spaces
- C. Each VPRN service maintains a separate VPN routing and forwarding instance to separate customer routing information
- D. A VPRN will ignore IP addressing information and use MAC addressing instead which are always unique
- E. A VPRN will translate customer IP addresses to a private addressing scheme administered by the service provider

Answer: B

**NEW QUESTION 438**

Which of the following statements BEST describes the purpose of UDP (Select two)?

- A. Provide a connectionless delivery service
- B. Provide a connection oriented delivery service
- C. Provide an unreliable transmission service
- D. Provide a reliable transmission service

Answer: AC

**NEW QUESTION 443**

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