Exam :   350-020

Title   :   CCIE SP Optical Qualification

Ver   :   10-23-07

QUESTION 1:

What IE is not mandatory in a Q.931 Service msg?

A. Bearer capability
B. Channel ID
C. Message Type
D. Change Status
E. Call Reference

Answer: A

QUESTION 2:

The purpose of Administrative Distance, as used by Cisco routers, is:

A. To choose between routes from different routing protocols when receiving
updates for the same network
B. To identify which routing protocol forwarded the update
C. To define the distance to the destination used in deciding the best path
D. To be used only for administrative purposes

Answer: A

QUESTION 3:

What is the maximum PMD value of a 100km fiber segment if the cable is specified
with 0.5ps/km ? (worst case)?

A. 0.005ps
B. .05ps
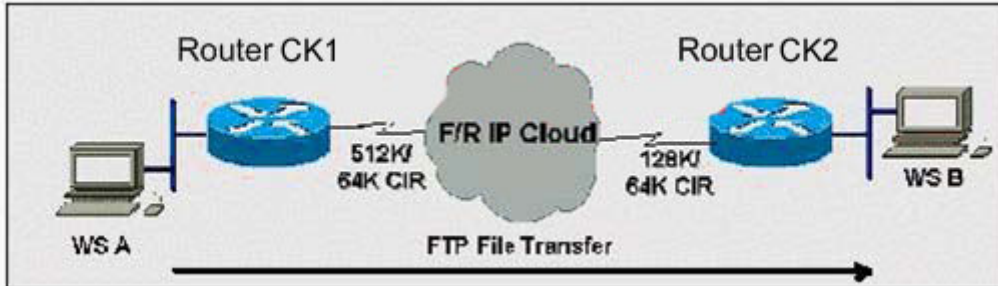C. 5ps
D. 50ps
E. 500ps

Answer: C

QUESTION 4:

What is the equivalent of 50 GHz spacing in DWDM in terms of nm?

A. 1.6 nm
B. 0.8 nm
C. 0.4 nm
D. 0.2 nm

Answer: C

QUESTION 5:

Exhibit:

Router CK1 has a 512K-access port into the frame relay cloud. Router CK2 has 128K-access port into the frame relay cloud. The two routers are connected with symmetrical PVCs that are configured for 64K committed information rate (CIR). What Frame Relay Traffic Shaping map-class sub-command should be entered on Router A to prevent workstation A from overrunning the access port on Router B?

A. frame-relay traffic-rate 128000 512000
B. frame-relay traffic-rate 64000 512000
C. frame-relay traffic-rate 512000 64000
D. frame-relay traffic-rate 128000 64000
E. frame-relay traffic-rate 64000 128000

Answer: E

QUESTION 6:

If a host sends a TCP segment with the RST flag set, it means:

A. The receiver should send all data in the reassembly buffer to the application receiving it immediately.
B. The receiver should reset the session.
C. Any routers between the source and destination hosts should reset the state of the connection in their buffers.
D. The receiver should make certain its send buffer is pushed onto the wire.

Answer: B

QUESTION 7:

How many E1 channels can STM-1 frame transport?

A. 7
B. 21
C. 63
D. 84

Answer: C

QUESTION 8:

BGP can implement a policy of 'Route Dampening' to control route instability.
What statement about route dampening is NOT correct?

A. A numeric penalty is applied to a route each time it flaps.
B. The penalty is exponentially decayed according to parameters, such as
half-life-time.
C. The history of unstable routes is forwarded back to the sender to control future
updates.
D. The route is eventually suppressed based on a configurable 'suppress limit'.
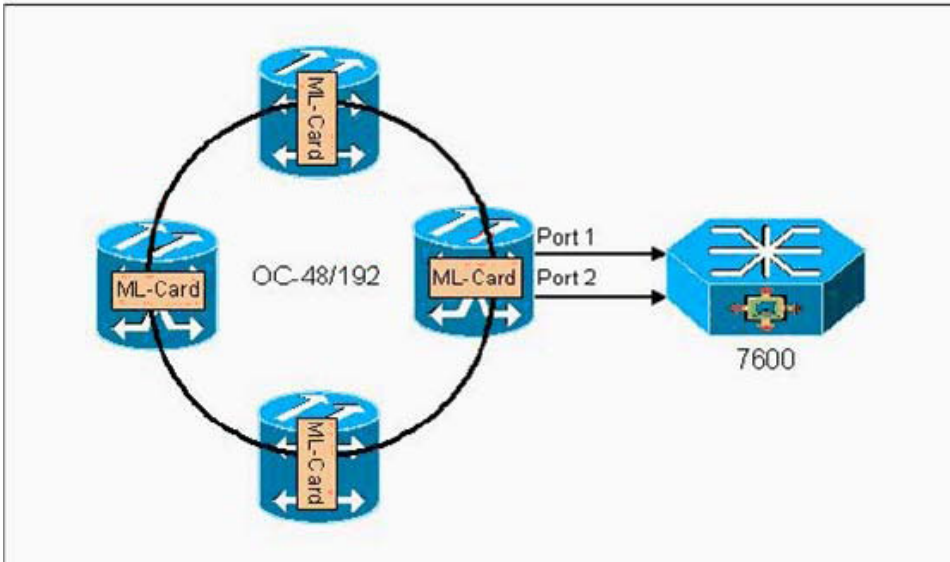
Answer: C

QUESTION 9:

MPLS traffic engineering data is carried by:

A. Opaque LSAs or IS-IS TLVs
B. BGP MEDs
C. RTP or RTCP packets
D. MBGP

Answer: A

QUESTION 10:

Exhibit:

In the diagram, if a resilient packet ring (RPR) is built between ML-series cards, ____ restoration exists on the ring, while the redundant connections to the 7609 rely on _____protection.

A. 50 ms, STP
B. STP, STP
C. STP, 1+1 APS
D. 50ms, 50ms

Answer: A

QUESTION 11:

How many E-1s can be aggregated (maximum) and mapped into a VC-12 Signal?

A. 1
B. 7
C. 14
D. 28
E. 32

Answer: A

QUESTION 12:

What is Fast EtherChannel?

A. A feature to bundle multiple Ethernet point-to-point links quickly into one logical high speed link
B. A feature to bundle multiple Fast-Ethernet point-to-point links into one logical

high speed link
C. Another name for full-duplex Fast Ethernet
D. Another name for Gigabit Ethernet
E. None of the above

Answer: B

QUESTION 13:

Exhibit:


```
Node-1#show controllers srp 2/0          Node-2#show controllers srp 5/0
SRP2/0 - Side A (Outer RX, Inner TX)     SRP5/0 - Side A (Outer RX, Inner TX)
Framing            : SONET                Framing            : SONET
Rx SONET/SDH bytes: (K1/K2) = 0/0         Rx SONET/SDH bytes: (K1/K2) = 0/0
Tx SONET/SDH bytes: (K1/K2) = 0/0         Tx SONET/SDH bytes: (K1/K2) = 0/0
Clock source       : Internal            Clock source       : Internal
Framer loopback    : None                Framer loopback    : None
Path trace buffer  : Stable              Path trace buffer  : Stable
  Remote hostname  : dalsplab12008c        Remote hostname  : Router
  Remote interface: SRP2/0                 Remote interface: SRP5/0
  Remote IP addr   : 10.10.10.50           Remote IP addr   : 10.10.10.25
  Remote side id   : B                     Remote side id   : B

SRP2/0 - Side B (Inner RX, Outer TX)     SRP5/0 - Side B (Inner RX, Outer TX)
Framing            : SONET                Framing            : SONET
Rx SONET/SDH bytes: (K1/K2) = 0/0         Rx SONET/SDH bytes: (K1/K2) = 0/0
Tx SONET/SDH bytes: (K1/K2) = 0/0         Tx SONET/SDH bytes: (K1/K2) = 0/0
Clock source       : Internal            Clock source       : Internal
Framer loopback    : None                Framer loopback    : None
Path trace buffer  : Stable              Path trace buffer  : Stable
  Remote hostname  : dalsplab12008c        Remote hostname  : Router
  Remote interface: SRP2/0                 Remote interface: SRP5/0
  Remote IP addr   : 10.10.10.50           Remote IP addr   : 10.10.10.25
  Remote side id   : A                     Remote side id   : A
```

A customer has improperly installed a 2-node OC-12 SRP ring using dark fiber.
Based on the printout from each node shown in the exhibit, what is the problem?

A. Misconfigured timing
B. Single faulty span or fiber between nodes
C. A-B side SRP interfaces are fiber-looped on each node
D. A-B side TX-TX and RX-RX fibers connected between nodes
E. A-A and B-B side SRP interfaces connected between nodes

Answer: C

QUESTION 14:

Exhibit:
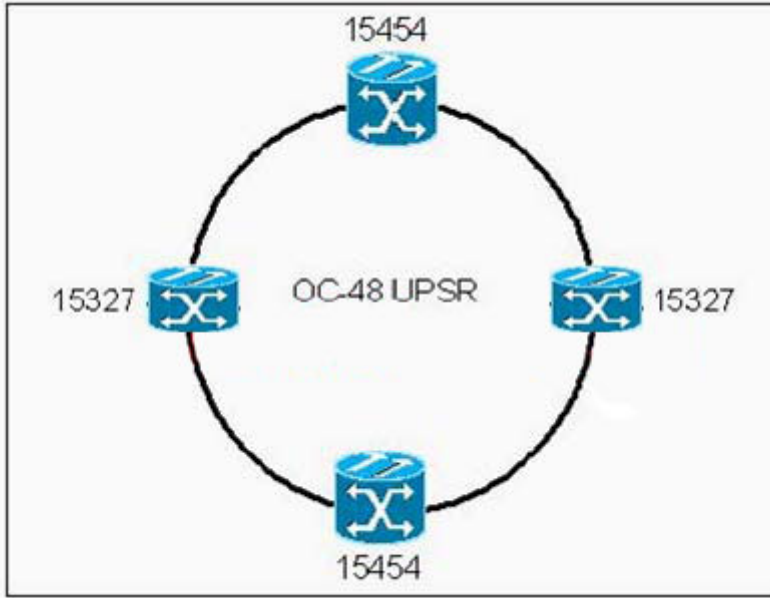
Which are the two possible circuit sizes for an E-series shared packet ring in the network shown in the exhibit?

A. STS-1
B. STS-3c
C. STS-6c
D. STS-9c
E. STS-12c

Answer: A,B


QUESTION 15:

Exhibit:

Upon deleting an IOS image file from flash, an execution of show flash shows the file still in flash, with a 'D' preceding it (as shown in the exhibit). What step must be taken in order to remove the file completely?

A. Erase the file from flash
B. Format the flash device
C. Replace the flash card - it is defective
D. Execute a squeeze command on the flash device

Answer: D

QUESTION 16:

Exhibit:
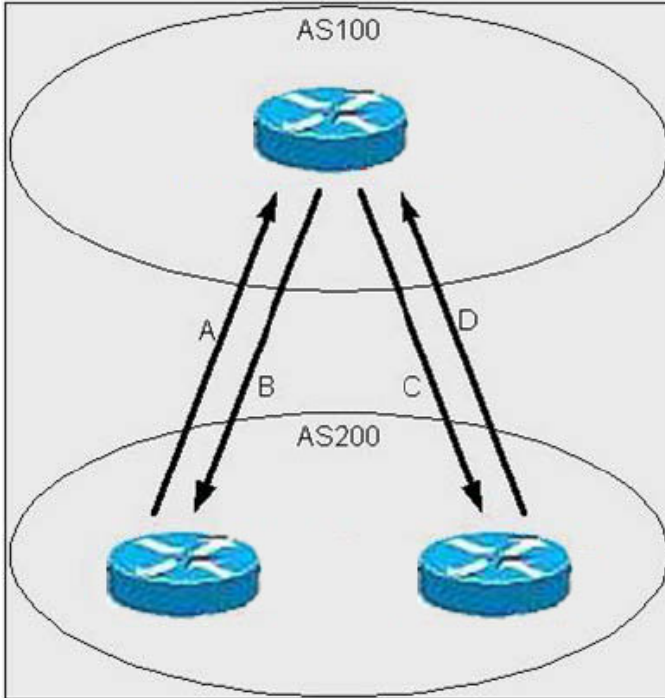
According to the diagram, what attribute is initiated by AS200 (IBGP) to give preference to the path A or D traffic will take when going from AS200 to AS100 . What attribute is initiated by AS200 (EBGP) to give preference to the path B or C traffic will take when going from AS100 to AS200?

A. MED;Origin
B. MED;Local Preference
C. Community; Origin
D. Origin,community

Answer: D

QUESTION 17:

Which three events might you diagnose as the cause of a line switching event?

A. Loss of signal and frame
B. Line AIS (all ones in STS pointer)
C. Routine exercises
D. Excessive signaling messages

E. Excessive bit errors in overhead
F. Switched photon elements

Answer: A,B,E

QUESTION 18:

While entering commands on a console, the break key is pressed accidentally and the router reboots. What action could disable this problem?

A. In configuration mode, enter disable break.
B. In configuration mode, enter no service break.
C. Change the configuration register.
D. Replace the router - this is an invalid response to pressing the break key when past 60 seconds after boot.

Answer: C

QUESTION 19:

What is NOT an ATM class of service?

A. CBR
B. VBR-t
C. ABR
D. UBR
E. CAR

Answer: E

QUESTION 20:

What describes a technique, used to encapsulate voice (NOT data) over ATM?

A. RFC 1483
B. LANE
C. AAL-1
D. RFC 1577

Answer: C

QUESTION 21:

What is the transmission limitation on a single 1550 nm signal, at OC-192 bit-rate, over certified SMF-28 fiber using no dispersion compensation?

A. Four-wave mixing
B. Polarization-mode dispersion
C. Chromatic dispersion
D. Attenuation

Answer: C

QUESTION 22:

In BGP, why should a Route Reflector be used?

A. To overcome issues of split-horizon within BGP
B. To reduce the number of External BGP peers by allowing updates to 'reflect'
without the need to be fully meshed
C. To allow the router to 'reflect' updates from one Internal BGP speaker to
another without the need to be fully meshed
D. To divide Autonomous Systems into mini-Autonomous Systems, allowing the
reduction in the number of peers
E. None of the above

Answer: C

QUESTION 23:

What statement is true concerning SDH?

A. To manage an SDH network, an optical service channel in the ADM is required.
B. An STM-16 signal equates to 10Gbit/s.
C. Orderwire provides a 64kbss voice channel for communication between RSTEs.
D. All SDH network elements must have optical interfaces.

Answer: C

QUESTION 24:

What is true about the DLCI field in the Frame Relay header?

A. It consists of two portions, source and destination, which map data to a logical
channel.
B. It generally has significance only between the local switch and the DTE device.
C. It is an optional field in the ITU-T specification.
D. It is present only in data frames sent through the network.

Answer: B

QUESTION 25:

Where is there a major difference between SONET and SDH?

A. Interpretation of Overhead
B. Regeneration
C. Multiplexing
D. Optical line bit rates
E. Ring topologies supported

Answer: A,C

QUESTION 26:

EIGRP applies the principle of Feasible Successor (FS) in resolving a new path to a lost route. What statement regarding the FS is correct?

A. Information is stored for the FS as part of the Link-State Routing updates forwarded for EIGRP.
B. EIGRP estimates the FS from each neighbor for each network after an exchange of database information during the normal update process. It uses this information for path selection when a route is lost.
C. When EIGRP is notified that a route is lost, it will always send requests to each neighbor for ways to reach the lost route. The neighbor that returns the best path will qualify as the FS.
D. EIGRP nominates a central router as the FS for all lost routes during configuration.

Answer: B

QUESTION 27:

If the PMD coefficient of a given fiber is 4 ps and the distance under consideration is 625Km calculate the effect of dispersion (differential group delay) due to PMD.

A. 100ps
B. 200ps
C. 50ps
D. 150ps

Answer: A

QUESTION 28:

What is the correct relative switching priority in a BLSR ring (higher to lower)?

A. Protection Lockout, Manual Switch, Forced Switch
B. Forced Switch, Manual Switch, Signal Degrade
C. Signal Fail, Signal Degrade, Manual Switch
D. Protection Lockout, Manual Switch, Path AIS
E. Signal Degrade, Signal Fail, Manual Switch

Answer: C

QUESTION 29:

Exhibit:
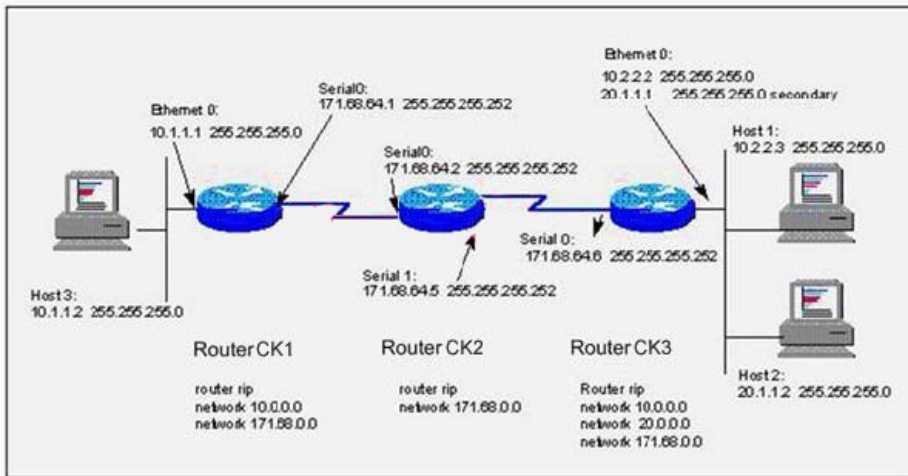
With RIP running, what command would be used to set the default route on Router
CK2 to 171.68.64.6 (Router CK3)?

A. ip default-network 171.68.64.6
B. ip route 0.0.0.0 255.255.255.255 171.68.64.6
C. ip route 0.0.0.0 0.0.0.0 171.68.64.6
D. None of the above

Answer: C

QUESTION 30:

Telcordia has defined national ISDN, which is basically within the construct of
Q.931 protocol with some modifications. If National ISDN requires a new
information element (IE), how will this need be handled?
A. No new IE can be defined by standard bodies other than ITU-T; therefore,
Telcordia must pass the information in open fields of existing IE.
B. Telcorida has to define a new codeset (CS) 0 IE.
C. Telcordia should define a new CS7 IE
D. Telcordia should define a new CS5 IE
E. Use CS8 IE

Answer: D

QUESTION 31:

What statement is correct regarding Virtual LANs (VLANs)?

A. It is permissible to bridge inside a VLAN, but not to route between VLANs.
B. It is not permissible to bridge inside a VLAN, but it is valid to route between VLANs.
C. It is permissible to bridge inside a VLAN and to route between VLANs.
D. It is not permissible to bridge inside or route between VLANs.

Answer: C

QUESTION 32:

When using IS-IS for IP routing, Dual IS-IS defined by RFC 1195, what is true?
(multiple answer)

A. It is necessary to configure a NSAP address.
B. It is not possible to perform both IP and CLNS routing wih the same process.
C. IP address and subnet information is carried in the TLV field on the L-1/L-1 LSPs.
D. Dual IS-IS does not support VLSM information.

Answer: A,C

QUESTION 33:

Exhibit:

```
A company has been assigned the Class B address of 191.8.0.0 by the NIC. They have decided
to use a subnet mask of 255.255.255.0 and an autonomous system number of 1.
The configuration for Router A is as follows:        The configuration for Router B is as follows:

RouterA#show running-config                          RouterB#show running-config
Current configuration:                               Current configuration:
version 11.3                                          version 11.3
1.)   hostname RouterA                                1.)   hostname RouterB
2.)   enable-password enablepassword                  2.)   enable-password san-fran
3.)   interface ethernet 0                            3.)   interface tokenring 0
4.)   ip address 191.8.1.1 255.255.255.0             4.)   ip address 191.8.2.1 255.255.255.0
5.)   no mop enabled                                  5.)   ring-speed 16
6.)   interface serial 0                              6.)   interface serial 0
7.)   ip address 191.8.150.1 255.255.255.0           7.)   ip address 191.8.150.2 255.255.255.0
8.)   ip name-server 255.255.255.255                 8.)   ip name-server 255.255.255.255
9.)   ip host RouterB 191.8.150.2 191.8.2.1          9.)   ip host A 191.8.2.1 191.8.150.1
10.)  snmp-server community ccie                      10.)  snmp-server community ccie
11.)  line vty 0 4                                    11.)  logging buffered
12.)  login                                          12.)  line vty 0 4
13.)  line con 0                                      13.)  login
14.)  line aux 0                                      14.)  line con 0
15.)  line vty 0                                      15.)  line aux 0
16.)  password vtypassword                            16.)  line vty 0
17.)  line vty 1                                      17.)  password cisco
18.)  password vtypassword                            18.)  line vty 1
19.)  line vty 2                                      19.)  password cisco
20.)  password vtypassword                            20.)  line vty 2
21.)  line vty 3                                      21.)  password cisco
22.)  password vtypassword                            22.)  line vty 3
23.)  line vty 4                                      23.)  password cisco
24.)  password vtypassword                            24.)  line vty 4
25.)  end                                             25.)  password cisco
RouterA#                                              26.)  end
                                                      RouterB#
```

The network associated with Router A's Ethernet 0 port is designed to be publicly accessible. However, Router B's Token Ring 0 network should be accessible only to hosts from Router A's Ethernet 0 network. What access list for Router B would accomplish this?

A. access-list 99 permit 191.8.1.0 0.0.0.255
access-list 99 deny 0.0.0.0 255.255.255.255
B. access-list 103 permit 191.8.1.0 0.0.0.255
access-list 103 deny 0.0.0.0 255.255.255.255
C. access-list 88 deny 0.0.0.0 255.255.255.255
access-list 88 permit 191.8.1.0 0.0.0.255
D. access-list 3 permit 191.8.1.0 255.255.255.0
access-list 3 deny 0.0.0.0 0.0.0.0
E. access-list 99 permit 191.8.10.0 0.0.0.0
access-list 99 deny 0.0.0.0 255.255.255.255

Answer: A

QUESTION 34:

What is not one of the five key functional areas for Cisco Transport Manager?

A. Accounting
B. Configuration
C. Fault
D. Inventory
E. Performance

Answer: A

___

QUESTION 35:

What are the four main parts of an EDFA?

A. Isolator, coupler, splitter, and pump
B. Isolator, splitter, pump, and filter
C. Coupler, splitter, pump, and doped fiber
D. Isolator, coupler, pump, and doped fiber
E. Coupler, pump, doped fiber, AWG

Answer: D

___

QUESTION 36:

What is the designation for regenerators that are bit rate dependent?

A. 1R
B. 2R
C. 3R
D. 1R, 2R and 3R

Answer: C

___

QUESTION 37:

How many bytes are dedicated to the Path Overhead in an STS-3 Frame?

A. 3
B. 6
C. 9
D. 18
E. 24

Answer: C

___

QUESTION 38:

If a Dialer Profile exists in the local configuration of a router, what is true?

A. A virtual-access password is configured automatically.
B. A virtual-access interface will inherit all configurations from the dialer profile.
C. AAA parameters cannot be applied to an interface.
D. None of the above

Answer: B

QUESTION 39:

Exhibit:
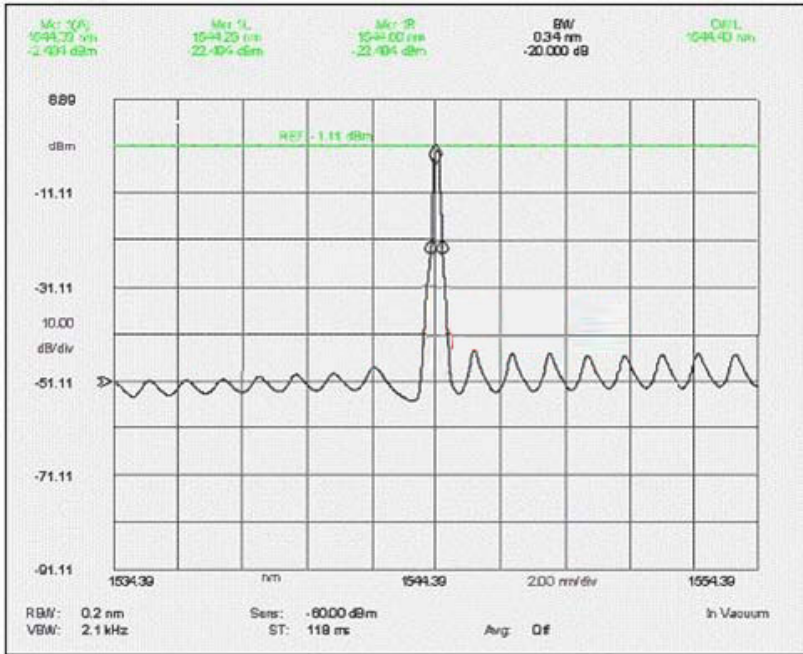
For the figure shown, what type of laser is being used? (Note: Measurement taken at launch point.)

A. 1310nm Long Reach (LR)
B. 1310nm Short Reach (SR)
C. 1510nm Long Reach (LR)
D. 1550nm Long Reach (LR)
E. 1550nm Short Reach (SR)

Answer: E

QUESTION 40:

Why is an STM-1 2F MS-SPRing not feasible?

A. An equal amount of working and protect bandwidth is needed per span.
B. Standards have not yet been defined for STM-1 MS-SPRings.
C. There is not enough bandwidth in an STM-1 ring to justify MS-SPRing configuration.
D. DCC bandwidth is not large enough to handle K1/K2 processing.
E. Switch times would exceed 50ms on an STM-1 MS-SPRing.

Answer: A

QUESTION 41:

How much dispersion will a pulse accumulate in 20 km if it has a dispersion figure of 17 ps/nm/km?

A. 34 ps/nm
B. 68 ps/nm
C. 340 ps/nm
D. 680 ps/nm
E. 3400 ps/nm

Answer: C

QUESTION 42:

In order to create a DCC tunnel in the ONS 15454, which TWO statements are necessary conditions?
1. LDCC tunnels need to be available.
2. The OC-N port where the DCC will be tunneled needs to be enabled.
3. A customer circuit must be provisioned first.
4. Only Ports 1&3 of the OC-3 card can tunnel DCC.
5. SDCC needs to be tunneled separately for transmit and receive directions

A. 1 and 2
B. 1 and 4
C. 1 and 5
D. 3 and 5

Answer: A

QUESTION 43:

What is a reason for using amplifiers with more than one stage?

A. To suppress ASE noise
B. To increase ASE noise
C. To maintain gain
D. To lower OSNR

Answer: D

QUESTION 44:

Exhibit:
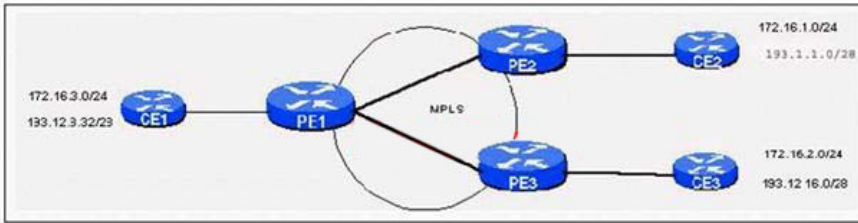
In the MPLS network shown, which subnets would be in the same Forwarding
Equivalence Class (FEC) on router PE1:

A. 172.16.3.0/24 and 193.1.1.0/28
B. 172.16.1.0/24 and 172.16.2.0/24
C. 172.16.1.0/24 and 193.1.1.0/28
D. 172.16.1.0/24, 172.16.2.0/24, and 172.16.3.0/24

Answer: C

QUESTION 45:

Which can be defined as the mean optical power required to obtain a required BER
at a given bit rate?

A. Receiver sensitivity
B. Receiver propagation power delay
C. Transmitter sensitivity
D. Transmitter power
E. None of the above

Answer: A

QUESTION 46:

What is the purpose of Dual Ring Interconnect in SONET rings?

A. Protects signals against a node failure in a single ring
B. Protects signals when a ring switch fails
C. Protects signals when multiple span switches fail
D. Protects pre-emptible traffic from being dropped when a ring switch occurs
E. Protects signals against intermediate node failures between rings

Answer: E

QUESTION 47:

Why is it important to leave some residual dispersion at an amplifier site when

10Gb/s signals in a DWDM system have gone through a dispersion compensating device?

A. Reduces the effect of polarization mode dispersion
B. Avoids gain tilt through the amplifier
C. Compensating to zero dispersion has too much loss penalty
D. Suppresses some non-linear effects like XPM and SPM
E. None of the above

Answer: D

QUESTION 48:

What SAN topology has the ability to scale to very large networks?

A. Switched Fabric
B. Arbitrated Loop
C. Point to Multipoint
D. Loop Channel bypass
E. Point to Point

Answer: A

QUESTION 49:

RPR capability on the ML-series cards increases the scalability of the ML architecture from 10 cards per ring to how many cards per ring?

A. 16
B. 32
C. 255
D. 4080

Answer: B

QUESTION 50:

Exhibit:
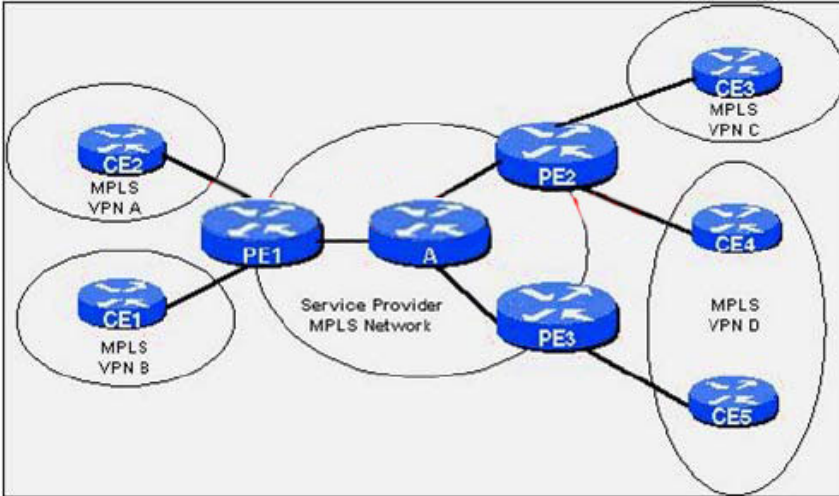
In the MPLS network shown, how many routing tables are on Router A?

A. 1
B. 2
C. 3
D. 4
E. 5

Answer: A

QUESTION 51:

Exhibit:
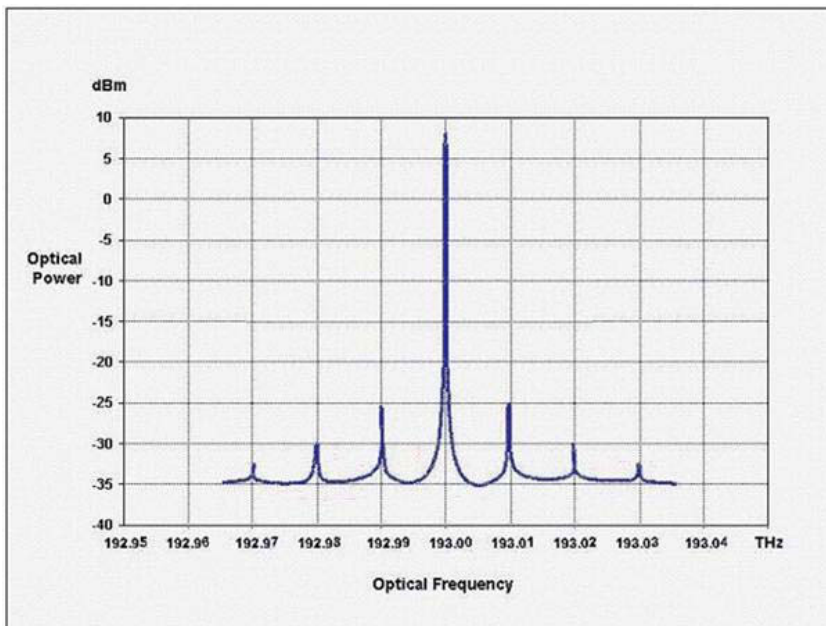
The exhibit represents a power to frequency graph of a modulated optical signal with a base frequency of 193.00 THz. What do the smaller peaks on each side of the

base frequency represent?

A. Pink noise of the transmitter
B. Four-wave mixing products
C. Modulation sidebands of the optical signal
D. Other wavelengths in a DWDM system
E. Gain tilt of wavelengths in a DWDM system

Answer: C

QUESTION 52:

What establishes routing table precedence in a routing table?

A. Default metrics
B. Routing priority
C. Type of service
D. Iambic pentameter
E. Administrative distance

Answer: E

QUESTION 53:

You have an E-series shared packet ring of size STS-3c consisting of ONS 15454 nodes. What is the maximum size point-to-point circuit that can be configured with the remaining bandwidth to the multi-card Ethernet group on the E-series cards?

A. STS-1
B. STS-3c
C. STS-6c
D. STS-12c
E. STS-24c

Answer: B

QUESTION 54:

Exhibit:

```
10.1.1.0/24
10.1.3.0/24
10.1.14.64/26
10.1.5.192/30
```

Given the four networks listed, what valid summary address (below) contains the longest prefix?

A. 10.1.0.0/20
B. 10.1.0.0/16
C. 10.1.1.0/23
D. 10.1.16.0/19
E. These networks cannot be summarized.

Answer: A

QUESTION 55:

What CiscoWorks 2000 application provides support for optical NEs?

A. Internet Performance Monitor
B. Resource Manager Essentials
C. Service Level Manager
D. Voice Health Monitor

Answer: B

QUESTION 56:

How can traffic be restored if a failure results in loss of working traffic only in a 4F
BLSR?

A. Path switching
B. Span switching
C. Ring switching
D. Label switching
E. Node switching

Answer: B

QUESTION 57:

What is the effective bandwidth of a 6 node, four-fiber OC-48 BLSR ring if all the
traffic on the ring is homed back to one node (hub-and-spoke) without Protection
Channel Access (PCA)?

A. STS-24
B. STS-48
C. STS-96
D. STS-192

Answer: C

QUESTION 58:

Exhibit:
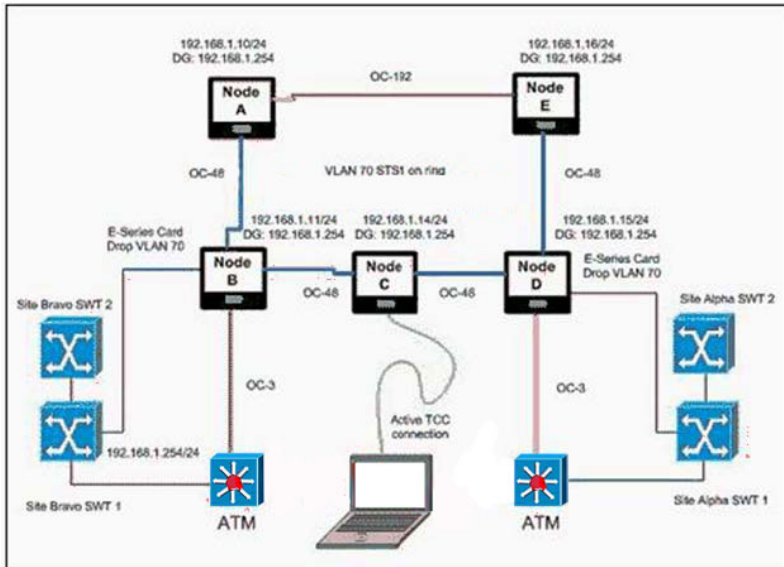
In the figure, what IP address would you assign to a desktop connected to the TCC port on node E . Would a static route be needed to allow access to other nodes, and in which node would you install it?

A. Any Pingable IP address from Telnet session in Site Bravo SWT 1, No static route needed to allow access to other nodes.
B. 192.168.1.101/24, Yes in Node E, local subnet pointed to 192.168.1.254.
C. 192.168.1.152/24, No Static route needed to allow access to other nodes.
D. 192.168.1.14/24, No Static route needed to allow access to other nodes.

Answer: C

QUESTION 59:

To set the SONET overhead bytes in the frame header to meet a specific standards requirement or to ensure interoperability with another vendor's equipment, use what configuration command line?

A. pos flag in the global
B. pos flag in the interface
C. pos flag-type in the global
D. pos flag-type in the interface

Answer: B

QUESTION 60:

Which describe the benefits that FICON has over ESCON?

A. Increased channel capacity due to new architecture
B. Increased channel capacity due to faster physical link rates
C. Increased channel capacity due to Upper Level Protocol Mapping
D. Increased channel capacity due to improved SCSI header re-write algorithms
E. FICON offers no significant advantage over ESCON

Answer: A,B

QUESTION 61:

What is the power at the output ports of a 90%-10% Tee coupler that has an 80 m W light source and 1 dB of excess loss?

A. 57.2 m W and 6.3 m W
B. 72 m W and 8 m W
C. 90.6 m W 10.2 m W
D. 60.3 m W 3.2 m W

Answer: A

QUESTION 62:

In order to avoid loops when sending routing updates, what is the correct technique to prevent a network from being forwarded on the same interface it is learned?

A. Poison Reverse
B. The use of access-lists used with distribute-list
C. Split Horizon
D. This is not a problem, since this cannot happen.

Answer: C

QUESTION 63:

ML-series QoS handling of multicast and broadcast traffic involves:

A. Putting all multicast and broadcast traffic in its own queue and giving it priority over other traffic.
B. Putting multicast and broadcast traffic in its own queue and allocating a 10% port bandwidth guarantee.
C. Configuration using the "bandwidth" command allowing QoS guarantees for multicast and broadcast traffic.
D. All multicast and broadcast being treated as best effort (BE) traffic.

Answer: B

QUESTION 64:

What is an active filter?

A. Prisms
B. Dielectric thin film interface filter
C. Diffraction grating
D. Semi-conductor filter
E. Bragg Grating

Answer: D

QUESTION 65:

For SONET Ring switching, the 50ms switch time applies to:

A. 50 ms, not including detection time
B. For rings smaller than 100km
C. For rings smaller than 2000km
D. Up to 64 nodes
E. Up to 254 nodes

Answer: A

QUESTION 66:

What feature of the spatial reuse protocol used in DPT allows for bandwidth reuse
on the ring?

A. Fairness algorithm
B. Token controlled access
C. Packet destination stripping
D. Automatic topology discovery
E. Multicast origination stripping

Answer: C

QUESTION 67:

What part of the SONET frame is used to overcome the need to buffer information
in order to have fixed information payloads?

A. Section Overhead
B. Line Overhead
C. Pointers

D. Path Overhead
E. H2 and STS-1

Answer: C

QUESTION 68:

The total capacity of a 2F MS-SPRing network of N nodes operating as MS-SPRing nodes operating at a ring speed of STM-4 in VC4 units is: (NOTE: PT=Pass Through traffic)

A. 2 x N - PT
B. 4 x N - PT
C. 8 x N - PT
D. Depends on the traffic pattern

Answer: A

QUESTION 69:

In Fiber optic communication systems, a pulse is said to be chirped if its carrier frequency changes with:

A. Distance
B. Time
C. Group Delay
D. Velocity
E. Wavelength

Answer: B

QUESTION 70:

With CGMP enabled, which are unique about the following MAC address range: 01-00-5E-00-00-00 to 01-00-5E-00-00-FF? (multiple answer)

A. CGMP does not prune those MAC addresses.
B. They contain the CGMP Multicast addresses for the IGMP Leaves and IGMP Queries.
C. CGMP filters those MAC addresses when they arrive at the processor
D. They are the reserved IP addresses of 224.0.0.0 to 224.0.0.255 for forwarding local IP multicast traffic in a single Layer 3 hop.

Answer: A,B,D

QUESTION 71:

What is NOT a characteristic of Direct attached Storage (DAS)?

A. High speed
B. Low latency
C. Limited distance
D. Re-routable protection

Answer: D

QUESTION 72:

On each LAN segment with multiple bridges running spanning tree, the bridge closest to the:

A. Designated bridge is selected as root bridge
B. Root bridge is selected as designated bridge
C. Root bridge is not selected as designated bridge
D. Designated bridge is not selected as root bridge

Answer: B

QUESTION 73:

What part of the SONET overhead would an Add/ Drop Multiplexer read/write?

A. Section Overhead
B. Information Payload
C. Path Overhead
D. Line Overhead
E. Does not read the SONET frame

Answer: A,D

QUESTION 74:

What condition is NOT a valid criterion for initiating a BLSR protection switch?

A. Reception of an AIS (all 1's) signal
B. High path bit-error-rate (BER) indicated in the B3 byte
C. Loss-of-frame (LOF) alarm
D. Request for a line switch in the K1 byte

Answer: B

QUESTION 75:

The TCP PUSH flag indicates:

A. The data in the TCP receive buffer should be sent to the application listening to this TCP connection without waiting for further data.
B. Any data being buffered by routers between the source and destination for this connection should be sent immediately.
C. The sender should make certain its send buffer is pushed onto the wire.
D. This session is about to end.

Answer: A

QUESTION 76:

The ML-series Ethernet card provides up to how many active 802.1Q in Q instances per card?

A. 512
B. 4095
C. 255
D. 1024

Answer: C

QUESTION 77:

What is an Inter Switch Link (ISL)?

A. A protocol to interconnect switches across ATM only
B. A protocol to interconnect switches across FDDI only
C. An IEEE protocol to interconnect multiple switches
D. A Cisco proprietary protocol for interconnecting multiple switches
E. An IEEE protocol to interconnect multiple switches across Fast Ethernet

Answer: D

QUESTION 78:

Of the four types of SONET transmission equipment, what performs the 3R (Refresh/ Re-amplify, Reshape, Retime) function?

A. Path Terminating Equipment
B. SONET Terminating Equipment
C. Regenerator
D. Add/Drop Multiplexer

E. Digital Cross-Connect System
F. Line Multiplexing Equipment
G. Post/PreAmplifier

Answer: C

QUESTION 79:

In Frame Relay, the FECN bit is set by:

A. The Frame Relay network, to inform the DTE receiving the frame that congestion was experienced in the path from source to destination
B. The Frame Relay network, in frames traveling in the opposite direction from those frames that encountered congestion
C. The receiving DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back
D. The sending DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back
E. Any device that uses an extended DLCI address

Answer: A

QUESTION 80:

Exhibit:
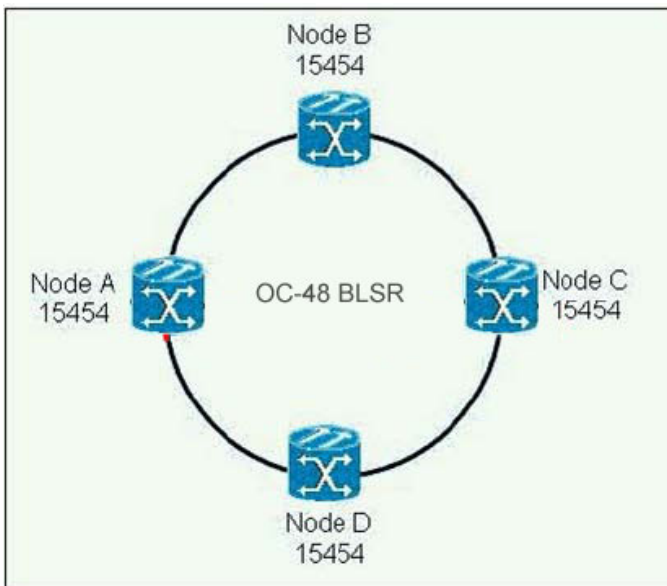
The network shown supports Synchronous Status Messaging (SSM), which byte supplied by the ADM at Site B in both directions in the section overhead is used for transporting SSM messages?

A. S1

B. J1
C. K2
D. Z1
E. None of the above

Answer: E

QUESTION 81:

What is the transmission limitation on a single 1310 nm signal, at OC-192 bit-rate, over certified SMF-28 fiber using no dispersion compensation?

A. Four-wave mixing
B. Polarization-mode dispersion
C. Chromatic dispersion
D. Attenuation

Answer: D

QUESTION 82:

In SDH an AU-4 unit is formed by:

A. Adding a C12 to its path overhead
B. Adding a VC4 to a VC4 pointer
C. Multiplexing TU12s
D. Combining a VC3 and its VC3 pointer

Answer: B

QUESTION 83:

A router is set up to redistribute routing updates from OSPF to RIP. What answer best describes issues the network administrator needs to be aware of?

A. Split Horizon, Poison Reverse, Holddown
B. Slow convergence, limited hop-count metric, lack of network mask information, periodic broadcasts
C. None, OSPF is a link-state routing protocol which overcomes issues found in RIP.
D. Difference in metrics (e.g. hops vs. cost), subnet mask allocation/addressing (e.g. VLSM vs. fixed subnet mask length), routing protocol summarization (e.g. network boundaries)

Answer: D

QUESTION 84:

Which three are types of payloads carried by path signal label byte C2?

A. 0x16 scrambled POS
B. 0x13 ATM
C. 0x13 unscrambled POS
D. 0xCF scrambled POS
E. 0xCF unscrambled POS

Answer: A,B,E

QUESTION 85:

How has the MDS 9000 been engineered to promote the use of DWDM for SAN extension?

A. The MDS 9000 has eliminated "Fibre Channel Droop" through proxy acknowledgements of frame arrivals.
B. The MDS 9000 has implemented buffer to buffer credits per port on the 16 port line card to allow for long distances.
C. The effects of Fibre Channel Droop are exaggerated and by using light amplification can be nullified.
D. DWDM has increased available lamdas in order to simultaneously send data on a second lamda, thereby eliminating fibre channel droop.

Answer: B

QUESTION 86:

The configuration register does NOT retain settings for:

A. An enabled 'Break' key
B. The console baud rate
C. The boot method
D. An enabled AUX port

Answer: D

QUESTION 87:

Exhibit:
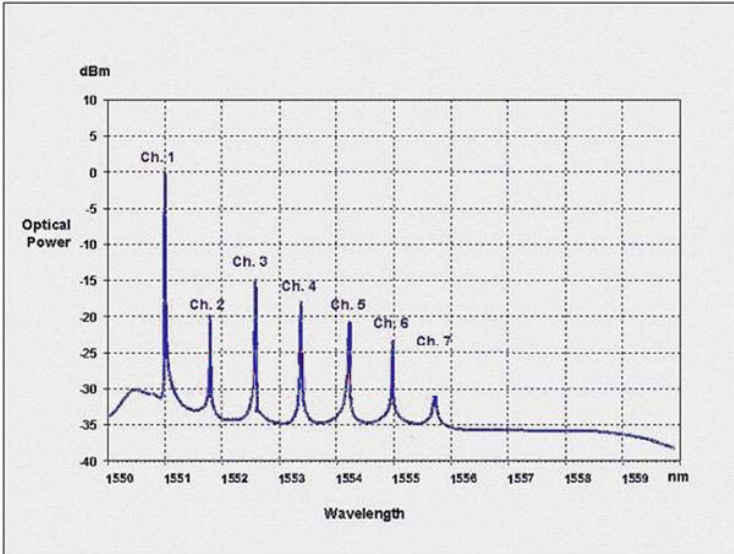
The graph represents optical signal power versus wavelength measurement from 1550nm to 1560nm. The spectral characteristic in the 1558nm to 1559nm range is commonly known as:

A. Noise floor
B. High dispersion region
C. Passband
D. Gain band
E. Attenuation band

Answer: A

QUESTION 88:

What statement about DCC tunneling in the ONS 15454 is true?

A. Only the first STS frame in any OC-n signal is used for tunneling.
B. For security reasons, the 15454 randomly assigns an STS frame from within any OC-n signal to be used for tunneling.
C. A different STS frame is used on each section of the ring, to prevent overlap or conflict on the protection path.
D. Only the last STS frame in any OC-n signal is used for tunneling (this feature is also used as a bit rate indicator).

Answer: A

QUESTION 89:

The Gigabit Ethernet Transponder mode on the G-series card provides:

A. Mapping of a single line-rate Gigabit Ethernet interfaces onto individual CWDM

or DWDM line-side wavelengths, requiring cross connect capacity.
B. Mapping of up to 2 line-rate Gigabit Ethernet interfaces onto individual CWDM
or DWDM line-side wavelengths without requiring cross connect capacity.
C. Mapping of up to 3 line-rate Gigabit Ethernet interfaces onto individual CWDM
or DWDM line-side wavelengths, requiring cross connect capacity.
D. Mapping of up to 4 sub-rate Gigabit Ethernet interfaces onto two individual
CWDM or DWDM line side wavelengths without requiring cross connect capacity.

Answer: B

QUESTION 90:

In SDH the function of the K1-K2 bytes is to:

A. Specify the level of synchronization of the signal
B. Provide a 64kbit/s voice channel for communication between multiplexers
C. Provide multiplexer section error monitoring using bit interleaved parity
D. Provide automatic protection switching signaling between two MSTEs

Answer: D

QUESTION 91:

Exhibit:

```
10.1.1.0/24 through OSPF
10.1.0.0/16 through EIGRP
10.1.0.0/16 static
```

If a router had the three routes listed, which one of the routes would forward a
packet destined for 10.1.1.1?

A. 10.1.0.0/16 through EIGRP, because EIGRP routes are always preferred over
OSPF or static routes.
B. 10.1.0.0/16 static, because static routes are always preferred over OSPF or
EIGRP routes.
C. 10.1.1.0/24 through OSPF because the route with the longest prefix is always
chosen.
D. Whichever route appears in the routing table first.
E. The router will load share between the 10.1.0.0/16 route through EIGRP and the
10.1.0.0/16 static route.
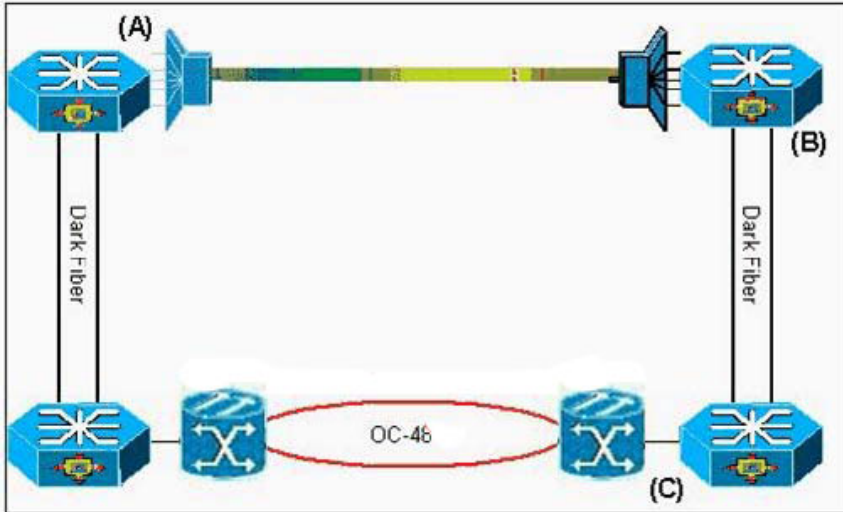
Answer: C

QUESTION 92:

Exhibit:
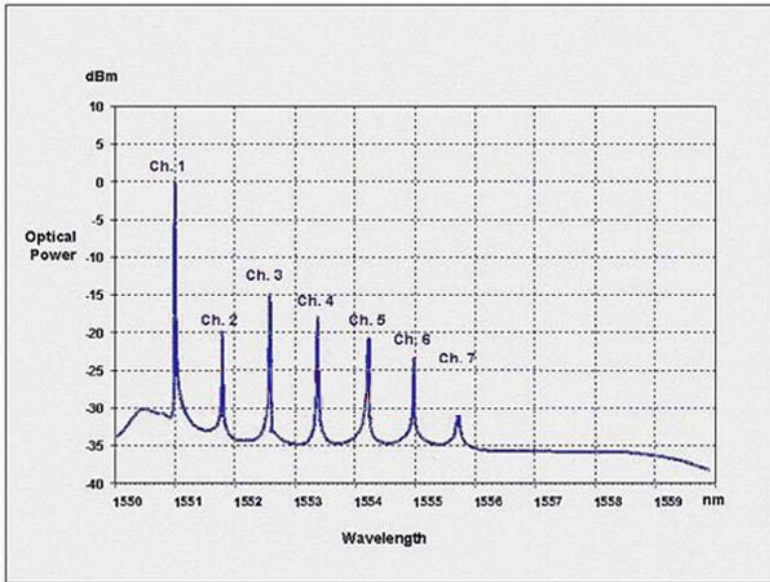
The graph represents optical signal power versus wavelength measurement from
1550nm to 1560nm. What is the worst case optical signal-to-noise ratio (OSNR) of
Channel 1 at 0.5nm away from the peak?

A. 21dB
B. 24dB
C. 27dB
D. 30dB
E. 33dB

Answer: D

QUESTION 93:

Exhibit:

The exhibit shows OC-12 POS connections across various transport media. Which are correct timing configurations for 7600 interfaces (A) and (B)? (Note: connection between routers B and C is set to internal timing.)

A. Line
B. Internal
C. External
D. Looped
E. Internal and external

Answer: A,B

QUESTION 94:

Using the ITU-T channel plan recommendation defined in G.692, if one of the channels has a frequency of 196.10THz (equivalent to 1528.77nm), then what is the wavelength of the next lower frequency based on a 50GHz channel plan?

A. 1527.99nm
B. 1528.38nm
C. 1529.16nm
D. 1529.55nm
E. 1529.94nm

Answer: C

QUESTION 95:

Exhibit:
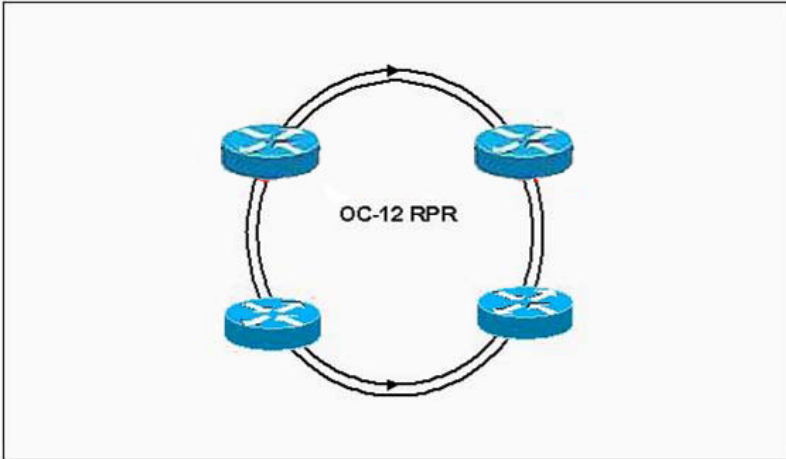
In a customer access ring environment, what type of transport architecture is best suited for creating an OC-12 RPR ring with 4 Cisco 12000 nodes?

A. It depends upon the traffic flow.
B. Meshed fiber with DWDM
C. SONET OC-12 2F-BLSR ring
D. SONET OC-12 2F-UPSR ring
E. Hub and spoke fiber with DWDM

Answer: C

QUESTION 96:

Exhibit:
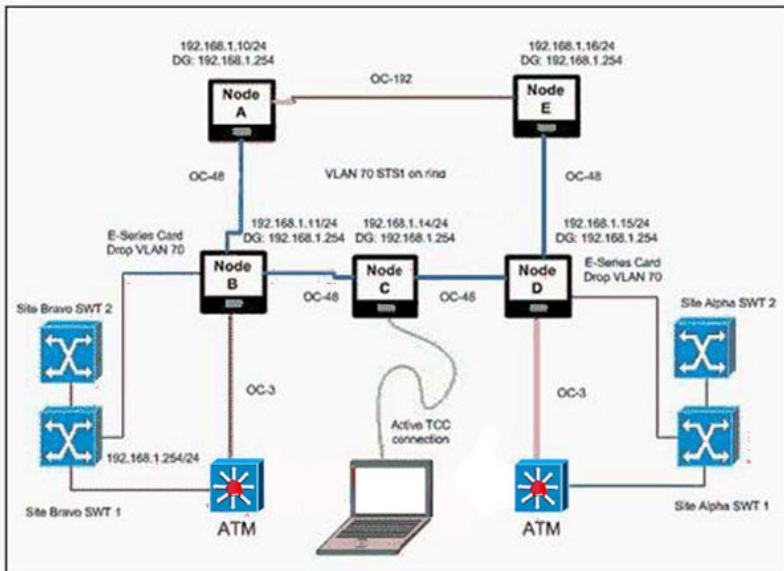
With a router connected to node E, and a laptop connected to node C, in what node would you put a static route to access this network from an external IP network?

A. None. A static route is only required when OSPF is disabled on the DCC and

each node is a on a different subnet.
B. In Node E
C. In Node B
D. In Nodes B and D

Answer: B

QUESTION 97:

What do directly modulated transponders vary to the laser in order to transmit an optical signal?

A. Voltage
B. Resistance
C. Current
D. Output signal
E. Temperature

Answer: C

QUESTION 98:

What is the difference in power at the input and the output of the device under test?

A. Cross Talk
B. Return Loss
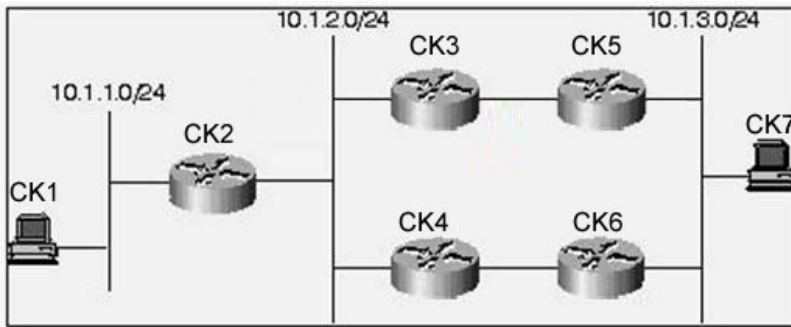C. Insertion Loss
D. Passband
E. None of the above

Answer: C

QUESTION 99:

Which three are examples of a non-linear effect? (Choose Three)

A. Self-phase modulation
B. Four-wave mixing
C. Chromatic dispersion
D. Stimulated Brillioun Scattering
E. Attenuation

Answer: A,B,D

QUESTION 100:

Exhibit:

Routers CK5 and CK6 are running HSRP (Hot Standby Router Protocol). Router
CK5 has a higher priority, and both routers have standby preempt configured.
Since Router CK5 is normally the active router, what IP address should Host G use
for its default gateway?

A. 10.1.3.1
B. Router CK5's IP address,since it is normally active; Router CK6's will take over Router CK5's IP address if it
fails.
C. Router CK6's IP address;the active router will take over the standby router's IP address untill it fails.
D. The virtual address configured when enabling HSRP number configured
E. the virtual address assigned by HSRP; this address is depend on the group number configured.

Answer: D

QUESTION 101:

In MPLS what is an LSP?

A. Label Selection Pair
B. Label Switched Path
C. Lightweight Signaling Protocol
D. Large Sampling Path

Answer: B

QUESTION 102:

OSPF is defined on a Frame Relay interface providing point-to-multipoint
connections. The remote neighbors can reach this central site, but are complaining
of routing failures between each of the remote sites. The central router has all the
routes for each remote site. Based on this information, what can be diagnosed as the
biggest potential problem?

A. An over-subscribed Frame Relay switch will cause some packet loss.
B. There are problems in the use of OSPF Authentication.

C. There is an incorrect selection of the Designated Router.
D. There is an incorrect DLCI assigned on a point-to-point sub-interface.

Answer: C

QUESTION 103:

Within a SONET frame, what does NOT have a fixed position?

A. Section Overhead
B. Path Overhead
C. Line Overhead
D. Transport Overhead
E. Multiplex Section Overhead

Answer: B

QUESTION 104:

In SONET, as a percentage of traffic Overhead is fixed at:

A. 1.50%
B. 7.54%
C. 3.45%
D. 9.43%

Answer: C

QUESTION 105:

What is the maximum theoretical provisionable bandwidth of the updated 15454
ANSI shelf?

A. 10 Gb/s
B. 48 Gb/s
C. 60 Gb/s
D. 96 Gb/s
E. 180 Gb/s

Answer: C

QUESTION 106:

Exhibit:

```
version 11.2
!
hostname router
!
boot system flash slot0:rsp-isv-mz.112-8.P
enable password cisco
```

Look at the router configuration above. If this router has a configuration-register
setting of 0x102, select the proper boot sequence:

A. The router will try to use the image "rsp-isv-mz.112-8.P" on slot 0, then attempt
to boot from a network server, and finally boot from
ROM.
B. The router will try use the image "rsp-isv-mz.112-8.P" on slot 0, then attempt to
boot from any other valid image in flash, and finally
boot from ROM.
C. The router will try to use the image "rsp-isv-mz.112-8.P" on slot 0, and then it
will boot from ROM.
D. The router will try to use the image "rsp-isv-mz.112-8.P" on slot 0, and then
attempt to boot from a network server.

Answer: A

QUESTION 107:

In a Unidirectional 1+1 MSP, what does Unidirectional indicate?

A. The link carries protected unidirectional traffic.
B. The protection is not revertive.
C. Only one direction of the traffic is protected.
D. Switch to protection occurs independently for each direction.
E. Switching only occurs at the receive side.

Answer: D

QUESTION 108:

Exhibit:
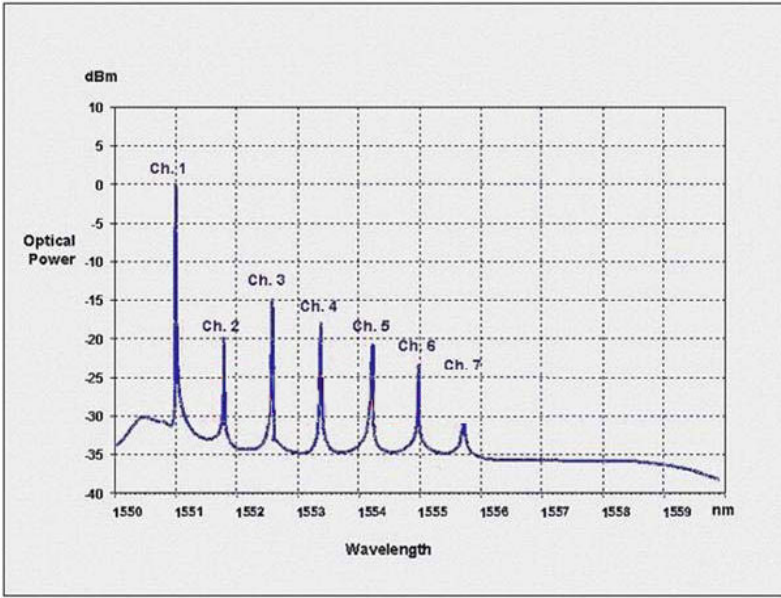
The graph represents optical signal power versus wavelength measurement from 1550nm to 1560nm. The laser type that provides very narrow spectral widths, (<100kHz) in the 1550nm range for DWDM applications (as shown in the graph), is an example of a:

A. Red Light Emitting Diode laser
B. Fabry-Perot laser
C. Distributed Feedback laser
D. Edge Emitting LED laser
E. Vertical Cavity Surface Laser

Answer: C

QUESTION 109:

A router is set to boot from flash, but cannot find boot commands in the configuration. Also, valid files do not exist in the default flash device. The router will:

A. Boot from ROM, since there are no valid sources
B. Try to boot from the network, using a default filename
C. Terminate the boot process with an error message
D. Try to boot from the network, then boot from ROM as a backup

Answer: D

QUESTION 110:

Within OSPF, what functionality best defines the use of a 'stub' area?

A. It appears only on remote areas to provide connectivity to the OSPF backbone.
B. It is used to inject the default route for OSPF.
C. It uses the no-summary keyword to explicitly block external routes, defines the non-transit area, and uses the default route to reach external networks.
D. It is a non-transit area that does not allow flooding of external networks and uses the default route to reach external networks.

Answer: D

QUESTION 111:

In Frame Relay, the BECN bit is set by:

A. The Frame Relay network, to inform the DTE receiving the frame that congestion was experienced in the path from source to destination
B. The Frame Relay network, in frames traveling in the opposite direction from those frames that encountered congestion
C. The receiving DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back
D. The sending DTE, to inform the Frame Relay network that it is overloaded and that the switch should throttle back
E. Any device that uses an extended DLCI address

Answer: B

QUESTION 112:

Exhibit:
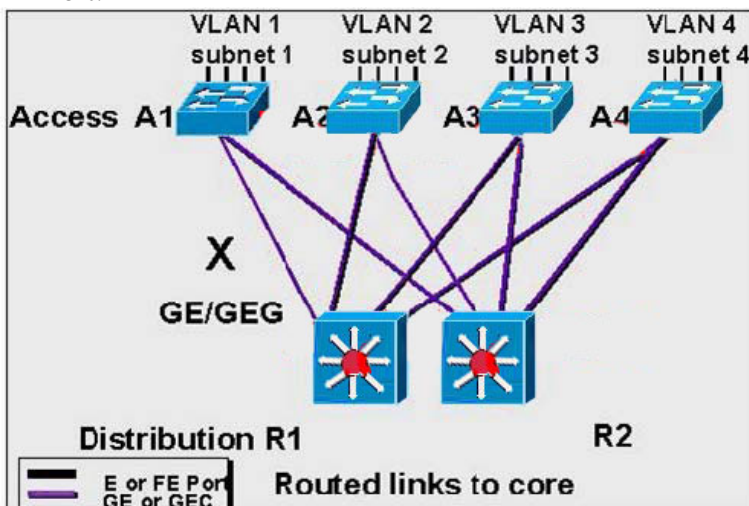
As shown in the diagram, a building in your campus network has two layer 3 switches in the distribution layer and four layer 2 switches in the wiring closets. The layer 3 switches are labeled R1 and R2. The layer 2 switches are labeled A1, A2, A3, and A4. Access switch A1 is configured as the root switch of VLAN 1. Each access

switch has a single subnet and the uplinks are configured as access ports, not VLAN trunks. If the uplink labeled X is cut, how long does spanning tree protocol interrupt connectivity before it converges?

A. About 2 to 3 seconds if UplinkFast is enabled
B. About 15 seconds
C. About 30 seconds
D. About 50 seconds
E. There should be no loss in connectivity.

Answer: E

QUESTION 113:

A network operator wants to have a continuous view of network alarms as they occur. What CTM component will provide this functionality?

A. CTM Dashboard
B. Domain Explorer
C. NE Explorer
D. Subnetwork Explorer

Answer: A

QUESTION 114:

How do FCIP and ISCSi differ?

A. ISCSI is a mechanism for adding mid-level servers to a SAN, where FCIP is a means to connect SAN to SAN.
B. ISCSI encapsulates a SCSI I/O request in a TCP/IP packet and routes it across an IP network. FCIP encapsulates native fibre channel into an IP packet and tunnels it across an IP network.
C. ISCSi encapsulates native fibre channel into an IP packet and tunnels it across an IP network. FCIP encapsulates a SCSI I/O request in a TCP/IP packet and routes it across an IP network.
D. ISCSi is a fibre channel replacement protocol and FCIP bridges the gap created when a customer migrates from pure fibre channel to ISCSi.

Answer: A,B

QUESTION 115:

Exhibit:
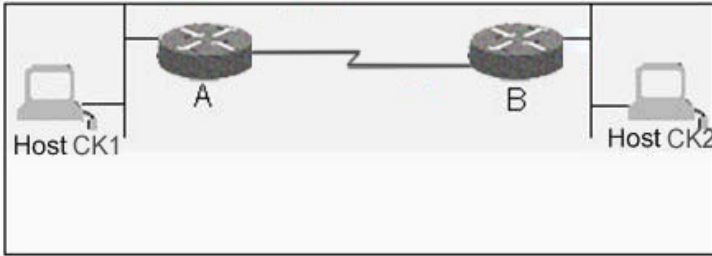
Host CK1 and Host CK2 are on Ethernet LANs in different buildings. A serial line is installed between two Cisco routers using Cisco HDLC serial line encapsulation. Routers A and B are configured to route IP traffic. Host CK1 sends a packet to Host CK2 . What is the destination MAC address of the packet on Host's CK1 Ethernet?

A. Host CK1
B. Host CK2
C. Router A
D. Router B
E. The broadcast address

Answer: C

QUESTION 116:

What Delimits the beginning and the end of the Frame Relay frame?

A. Address
B. FCS
C. Data
D. Flags
E. Packets

Answer: D

QUESTION 117:

When an ML-series RPR ring is provisioned over a SONET BLSR (or SDH MS-SPR) ring, the ML architecture can no longer utilize the full available bandwidth on the SONET/SDH ring due to the constraints of BLSR. Which features are being introduced to allow use of discontiguous timeslots and BLSR protect channels when provisioning ML-series RPR rings, in order to alleviate this limitation?

A. Software Link Capacity Adjustment Scheme (SW-LCAS)
B. Low Order Virtual Concatenation (LO-VCAT)
C. Framed Generic Framing Procedure (GFP-F)
D. High Order Virtual Concatenation (HO-VCAT)
E. Bridge Control Protocol (BCP)

Answer: A,D

QUESTION 118:

In Frame Relay, what devices resend packets that do not transmit correctly?

A. Digital transmission media cabled to monitor ports, as opposed to straight DCE signaling
B. Network end stations
C. Network switches running SNMP management software
D. Special bridging devices within the backbone cloud

Answer: B

QUESTION 119:

Exhibit:

```
S*   0.0.0.0/0 [1/0] via 172.31.116.65
D    172.16.0.0/24 [90/48609] via 10.1.1.1
R    172.16.0.0/16 [120/4] via 192.168.1.4
```

A router has the above routes listed in its routing table and receives a packet destined for 172.16.0.45. What will happen?

A. The router will not forward this packet, since it is destined for the 0 subnet.
B. The router will forward the packet through 172.31.116.65, since it has the lowest metric.
C. The router will forward the packet through 10.1.1.1.
D. The router will forward the packet through 172.31.116.65, since it has the lowest administrative distance.
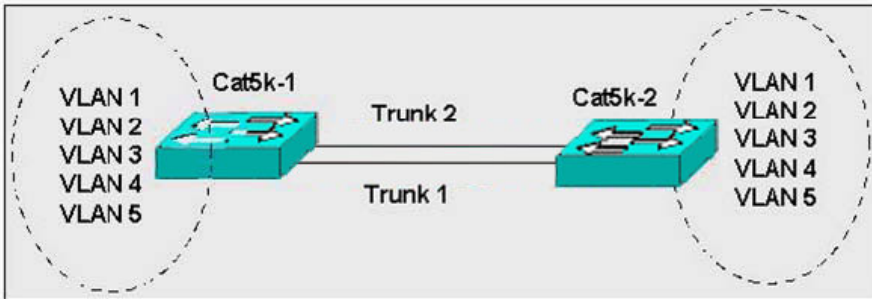E. The router will forward the packet through 192.168.1.4.

Answer: C

QUESTION 120:

The size of the payload part of a STM-N signal is:

A. N x 252 columns by 9 rows
B. N x 261 columns by 9 rows
C. N x 270 columns by 9 rows
D. N x 279 columns by 9 rows

Answer: B

QUESTION 121:

Exhibit:

Assuming default spanning tree configurations are running between two switches with redundant trunks:

A. Both trunk 1 and trunk 2 will go into blocking mode to avoid loops.
B. One trunk will go into blocking mode for all VLANs.
C. Certain VLANs can be blocked on one trunk and other VLANs on the second trunk.
D. Both trunks can be in a forwarding state for all VLANs.
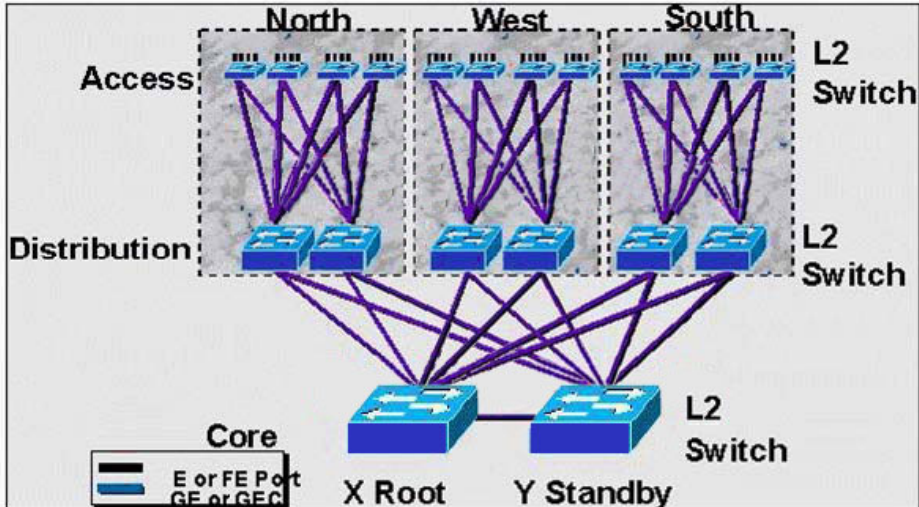
Answer: C

QUESTION 122:

An inverse ARP is sent:

A. To map a hostname to an IP address
B. To map an IP address to a hostname
C. To map an MAC address to an IP address
D. To map a MAC address to a hostname
E. To map an IP address to a MAC address

Answer: C

QUESTION 123:

Exhibit:

The diagram shows an L2 switched campus. Switch X is the STP root and switch Y is the standby root. How many of the links in the diagram will be placed in blocking mode by STP?

A. 6
B. 7
C. 12
D. 13
E. 18
F. 19

Answer: E

QUESTION 124:

Which topologies are supported in Storage Area Networks?

A. Linear Bus
B. Arbitrated Loop
C. Switched Fabric
D. Point-to-Point
E. Point-to-Multipoint

Answer: B,C,D

QUESTION 125:

The two label distribution protocols that provide support for MPLS traffic engineering are:

A. RSVP and OSPF

B. CR-LDP and IBGP
C. RSVP and CR-LDP
D. LPS and LDS

Answer: C

QUESTION 126:

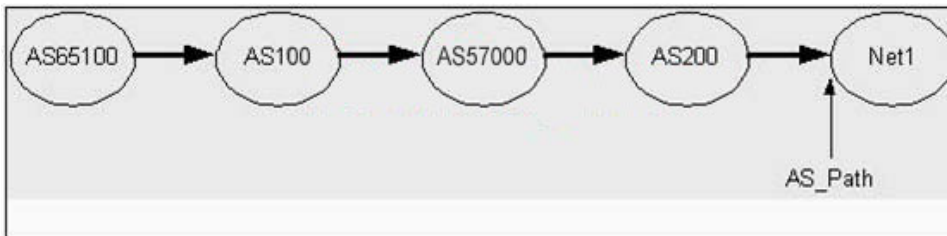What does the ML-series QoS feature set NOT allow it to classify incoming packets based on?

A. MAC address
B. Virtual LANs
C. IP DSCP
D. 802.1 Q CoS
E. IP Precedence

Answer: A

QUESTION 127:

Exhibit:

Using the above diagram, which are valid BGP AS_Path Attributes received at Net1 for a route originating from AS65100? (multiple answer)

A. 200 57000 100 65100
B. 200 57000 100 100
C. 100 57000 200
D. 200 57000 100
E. 65100 100 57000 200

Answer: A,D,E

QUESTION 128:

What is the major difference between multicast and unicast packet handling in RPR?

A. They are sent via different Ring IDs.
B. Multicast packets use source stripping.

C. Multicast packets are sent highest priority.
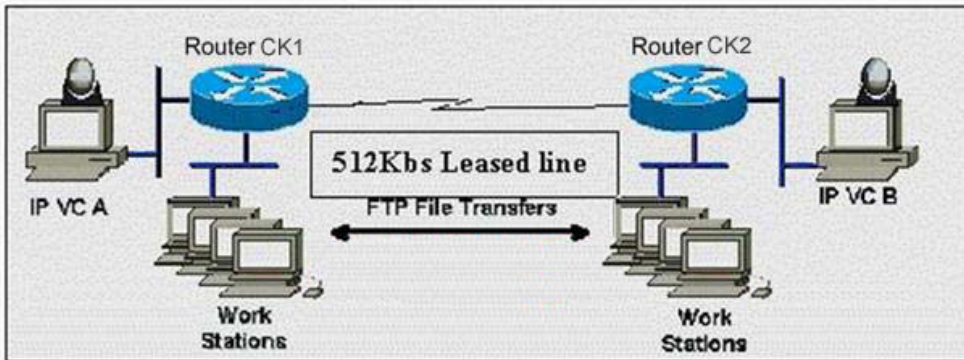D. Only unicast packets are affected by the TTL parameter.

Answer: B

QUESTION 129:

The DCC used to connect Cisco Optical Platforms 15454 and 15327:

A. 192Kb/s unframed in the LOH
B. Are carried on D1-D3 and are TCP/IP Stack Based
C. 768Kb/s Ethernet Framed in the SOH
D. Are carried on the D1-D3 bytes of the POH

Answer: B

QUESTION 130:

Exhibit:

Assume IP Videoconference station A places a 384Kb call to IP Videoconference station B and the Workstations are transferring files back and forth between themselves during the same time period. What Cisco feature should be used on both routers to avoid unwanted jitter and guarantee the videoconference will get enough bandwidth for the duration of the call?

A. Frame Relay Traffic Shaping (FRTS) with FRF.12 packet fragmentation
B. Generic Traffic Shaping (GTS) with FECN Rate Adaptation activated
C. Bandwidth Guarantee for Videoconferencing (BGV)
D. Resource Reservation Protocol (RSVP)
E. Weighted Fair Queuing (WFQ) with IP Precedence

Answer: D

QUESTION 131:

When you are troubleshooting a POS installation and want to determine who you are physically connected to, which of the following SONET overhead bytes contains that information?

A. A1 A2 bytes
B. E1 Section Overhead byte
C. C2 Path Signal
D. J1 Path Trace
E. K1 K2 bytes

Answer: D

QUESTION 132:

How much Transport Overhead is contained in a SONET STS-1 frame (excluding VT overhead)?

A. 1.728 Mb/s
B. 51.84 Mb/s
C. 8.0 Mb/s
D. 50.112 Mb/s

Answer: A

QUESTION 133:

In SDH, what is the meaning of S-16.1 defining an interface?

A. S-16 for STM-16, 1 for Short Haul
B. S for Short Haul, 16 for STM-16, 1 for 1-port card
C. S for Short Haul, 16 for STM-16, 1 for 1310 nm
D. S for Short Haul, 16 for STM-16, 1 for 1st port on card

Answer: C

QUESTION 134:

What is the principle operation of back to back DWDM systems in selecting wavelengths to drop?

A. Selecting specific wavelengths from the signal and filtering only those out.
B. Filtering out the required wavelengths and then regenerating the new signal.
C. Terminating every wavelength and then regenerating the ones required.
D. Efficiently amplify all signals in the same fiber

Answer: C

QUESTION 135:

Which bytes in the Section Overhead identify the beginning of the STS-1 frame?

A. A1, A2
B. B1, B2
C. H1, H2
D. K1, K2
E. J0, J1

Answer: A

QUESTION 136:

What is RPF?

A. Reverse Path Forwarding
B. Reverse Path Flooding
C. Router Protocol Filter
D. Routing Protocol File
E. None of the above

Answer: A

QUESTION 137:

In SDH a VC-3 is built to contain the following PDH rates:

A. 155Mbit/s
B. 140Mbit/s
C. 622Mbit/s
D. 45Mbit/s & 34Mbit/s

Answer: D

QUESTION 138:

What network is a supernet?

A. 134.176.64.0 255.255.192.0
B. 16.0.1.0 255.255.255.0
C. 134.176.0.16 255.255.255.240
D. 195.97.16.0 255.255.254.0

Answer: D

QUESTION 139:
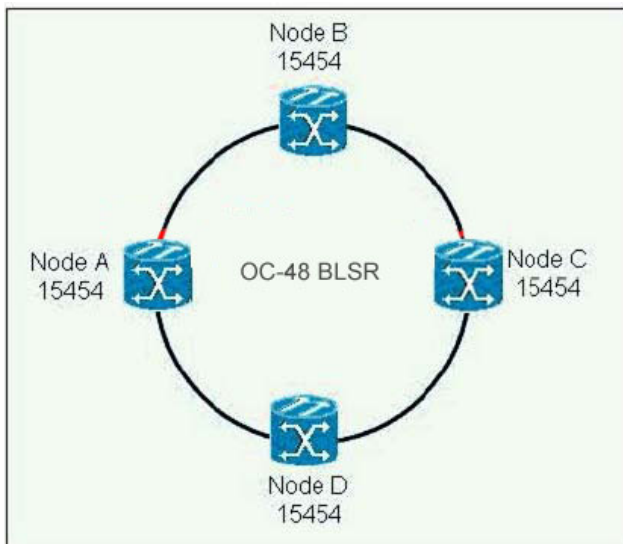
Why does SNR decrease as the signal progresses through the DWDM system?

A. Noise is easier to amplify
B. Stimulated emissions cannot be eliminated
C. Noise increases through each amplification stage
D. Dispersion adds greater noise
E. Inherent attenuation properties of fiber

Answer: C,E

QUESTION 140:

Exhibit:

If you have a fiber cut on all four fibers between nodes C and D in the following
diagram put the events listed below in correct chronological sequence.
1. node A loops back traffic in the direction of node E
2. node D initiates a line switch and signals the fact in the K2 byte
3. node C loops back traffic in the direction of node B
4. both sides switch traffic to the protect channel and the circuit is restored in less
than 50 ms
5. nodes C detects the loss of signal and signals the fact in the K1 byte

A. 1, 2, 5, 3, 4
B. 2, 1, 5, 3, 4
C. 5, 3, 1, 2, 4
D. 5, 3, 4, 1, 2

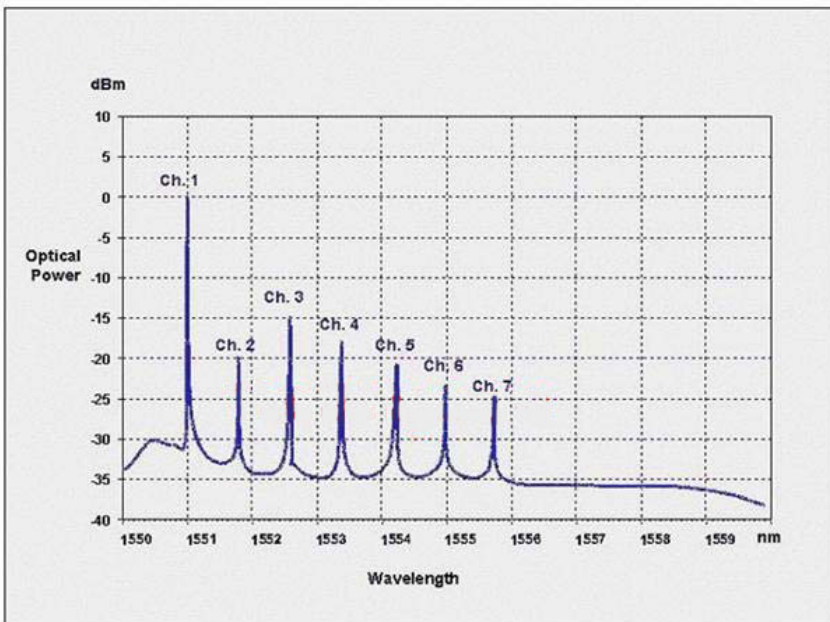Answer: C

QUESTION 141:

In R4.1 of the 15454, the ML-series Ethernet cards provide QoS enhancements that allow Service Providers to deliver CIR/PIR (Committed Information Rate/Peak Information Rate) type SLA's. Which two specific QoS mechanisms were added to accomplish this?

A. Weighted Deficit Round Robin Scheduling (WDRR)
B. Tri-color policer
C. Discard Eligible Tail Drop Mechanism
D. Low Latency Queuing (LLQ)
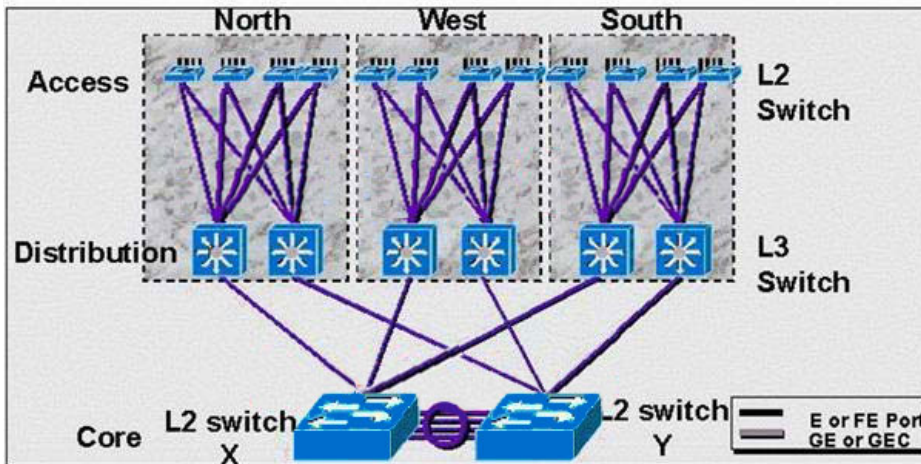
Answer: B,C

QUESTION 142:

Exhibit:

The graph represents optical signal power versus wavelength measurement from 1550nm to 1560nm. What is the gain tilt of all of the seven channels?

A. 10dB
B. 15dB
C. 20dB
D. 25dB
E. 30dB

Answer: D

QUESTION 143:

Exhibit:

The diagram shows a campus with a L2 switched backbone. The backbone has a single VLAN (= subnet) with no loops. The links into the backbone are routed interfaces, not VLAN trunks. Switch X is the STP root of the core VLAN and switch Y is the standby root. The connection between X and Y is an EtherChannel. The network architect wants to add more redundancy by connecting the L3 switches in the distribution layer to both X and Y. What best describes that plan?

A. It is a sound idea because it increases bandwidth and redundancy.
B. It is not sound financially because the extra links will be blocking.
C. It will cause loops that STP cannot resolve.
D. It is impossible because routers cannot have two interfaces on the same subnet.
E. It is a sound idea because packets take a single L2 hop across the backbone.
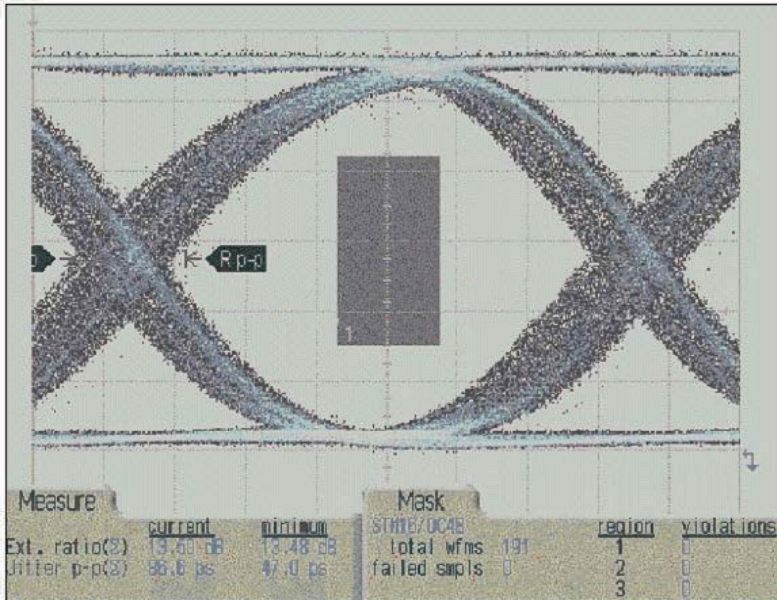
Answer: D

QUESTION 144:

MPLS does not support:

A. Multicast
B. OSPF
C. BGP
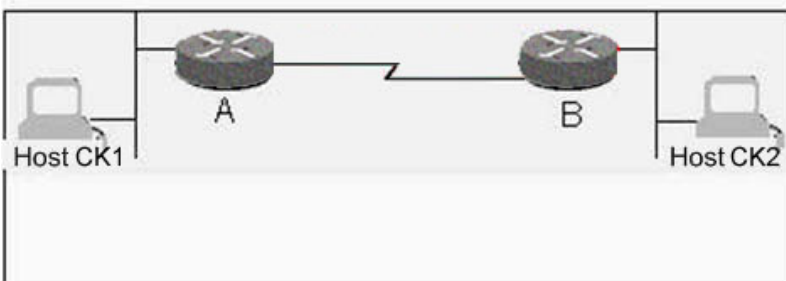D. Multicast and OSPF

Answer: A

QUESTION 145:

Exhibit:

In the OC-48 signal shown, when is the extinction ratio acceptable?

A. Always
B. Never
C. Only when the BER is 10E-06
D. Always, unless the BER is 10E-06

Answer: A

QUESTION 146:

Exhibit:

Host CK1 and Host CK2 are on Ethernet LANs in different buildings. A serial line is installed between two Cisco routers using Cisco HDLC serial line encapsulation. Routers A and B are configured to route IP traffic. Host CK1 sends a packet to Host CK2 . A line hit on the serial line causes an error in the packet. When this is detected, the retransmission is sent by:

A. Host CK1
B. Host CK2
C. Router A

D. Router B
E. Protocol analyzer

Answer: A

QUESTION 147:

Exhibit:

```
*Mar  1 00:38:43.351: %SGBP-1-AUTHFAILED: Member C4500CD failed authentication
*Mar  1 00:38:57.723: %SGBP-7-NORESP: Fail to response to C4500CD group stack,
may not have password
*Mar  1 00:39:17.719: %SGBP-7-NORESP: Fail to response to C4500CD group stack,
may not have password
```

Using the shown debugging excerpt, what option best describes the problem?

A. An ISDN router has a misconfigured username password pair.
B. An ISDN router is missing the stack password.
C. The offload server does not offload calls from ISDN routers not using PPP Multilink.
D. The offload server has a bad password.

Answer: B

QUESTION 148:

What type of effect on optical signals occurs when temperature fluctuations and bending stresses on fiber?

A. Polarization-mode dispersion
B. Self-phase modulation
C. Cross-phase modulation
D. Four-wave mixing

Answer: A

QUESTION 149:

Which are the correct ways to release IBGP from the condition that all IBGP neighbors need to be fully meshed? (multiple answer)

A. Configure local preference
B. Configure route reflectors
C. Configure IBGP neighbors several hops away
D. Configure confederations

Answer: B,D

QUESTION 150:

Routers running OSPF and sharing a common segment become neighbors on that segment. What statement regarding OSPF neighbors is FALSE?

A. The Primary and Secondary addresses on an interface allow the router to belong to different areas at the same time.
B. All routers must agree on the stub area flag in the OSPF Hello Packets.
C. Neighbors will fail to form an adjacency if their Hello and Dead intervals differ.
D. Two routers will not become neighbors if the Area-ID and Authentication password do not match.

Answer: A

QUESTION 151:

When discussing FCIP compression what should be addressed?

A. The type of data being compressed will determine the compression ratio.
B. The speed of the link will determine the compression ratios that are possible.
C. Amount of data will determine the compression ratio.
D. An algorithm that takes into account speed, type and link speed will determine the ratio.

Answer: A

QUESTION 152:

What does NOT contribute to lowered throughput in practical IP over ATM networks?

A. ILMI overhead
B. SAR delay
C. Cell tax
D. Cell padding

Answer: A

QUESTION 153:

What is the frequency of an optical signal with a wavelength of 1530 nm?

A. 196.1 THz

B. 196.1 GHz
C. 459 THz
D. 459 GHz

Answer: A

QUESTION 154:

How many DS-3s can be mapped to one STM-1 frame?

A. 1
B. 3
C. 7
D. 21
E. 28

Answer: B

QUESTION 155:

In a Distance Vector protocol, "counting to infinity":

A. Calculates the time taken for a protocol to converge
B. Checks to make sure the number of route entries do not exceed a set upper limit
C. Counts the packets dropped during a routing loop
D. Sets an upper limit for hop count, so that routing loops can be broken if this limit
is reached
E. Causes the router to enter an infinite loop and requires the router to be restarted

Answer: D

QUESTION 156:

What is NOT a good rule-of-thumb when designing the placement of Erbium Doped
Fiber Amplifiers (EDFA) in a ring?

A. Try to space the EDFAs evenly between transmitter and receiver
B. Use a low noise, low gain EDFA for a pre-amp situation
C. Use a high gain, high noise EDFA for a pre-amp situation
D. For a 32 lambda system, try to avoid getting below -21 dBm input power for any
lambda coming into an EDFA

Answer: C

QUESTION 157:

Which statements are true regarding port channeling?

A. A loss of one port in the channel will not cause FSPF (Fabric Shortest Path First) protocol to re-converge, therefore no fabric disruption will occur.
B. Port Channeling has no master port and does not fail the whole channel on a loss of one port in the channel.
C. A master port is defined to allow that port to determine which path a frame should take through the channel.
D. Cisco's port channel feature allows only 4 ports to be aggregated per line card.

Answer: A,B

QUESTION 158:

What part of the SONET frame can be used to identify and locate trouble between regenerators?

A. Path Overhead
B. Section Overhead
C. Line Overhead
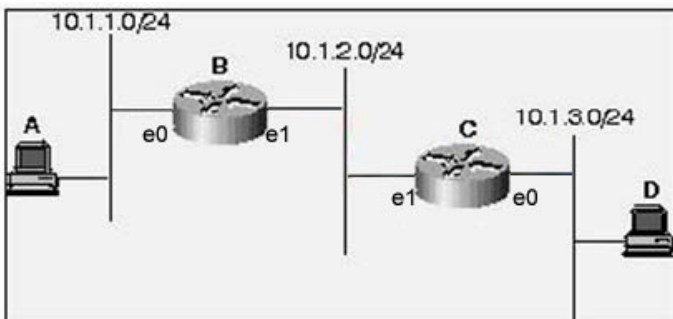D. Information Payload

Answer: B

QUESTION 159:

What are thin-film filters (TFF) a form of?

A. In-fiber Bragg grating
B. Dielectric filter
C. Array wave guide grating
D. Prism grating

Answer: B

QUESTION 160:

Exhibit:

In this network, Host A is trying to reach Host D. There is no routing protocol
running, but Router B and C have the following static routes configured:
Router B: ip route 10.1.3.0 255.255.255.0 ethernet 1
Router C: ip route 10.1.1.0 255.255.255.0 ethernet 1

A. This will not work because Router B has no idea of how to forward traffic to the
10.1.3.0/24 network.
B. This will work because Router B will recognize that Router C is on the 10.1.2.0/24
network through a router discovery protocol and
will forward traffic for 10.1.3.0/24 to Router C.
C. This will not work because a broadcast interface in a static route command
cannot be specified.
D. This will work because Router B will ARP for Host D's IP address on the
10.1.2.0/24 network and Router C will answer.

Answer: D

QUESTION 161:

What is the primary benefit of the "time-to-live" field in the IP header?

A. To improve buffer utilization
B. To reduce the impact of routing loops
C. To allow calculation of round-trip delays
D. To remind us that all earthly joys are fleeting
E. To avoid delivery of packets that are no longer useful
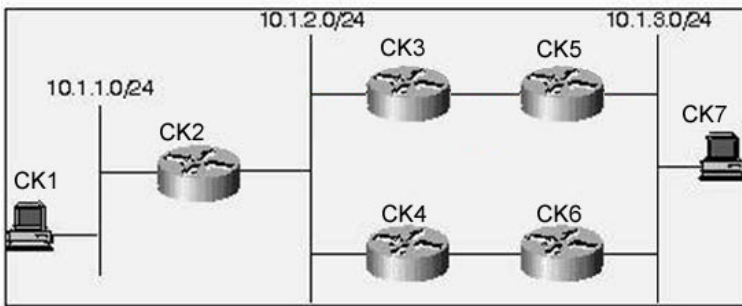
Answer: B

QUESTION 162:

If a 10 KM fiber cable segment has a worst-case PMD value of 1.0ps, then what
would the PMD value be (worst-case) if another 30 KM segment is spliced into the
original cable with identical fiber specifications?

A. 0.1ps
B. 0.3ps
C. 0.4ps
D. 1.3ps
E. 4ps

Answer: E

QUESTION 163:

Exhibit:

Routers CK5 and CK6 are configured for HSRP (Hot Standby Routing Protocol).
CK5 has a priority of 100, while CK6 has a priority of 50. At one point, when CK5 is
the active router, it fails, and CK6 takes over as the active router. A few minutes
later, CK5 returns to service. What happens?
A. CK6 will remain the active router,there is no way for CK5 to become the active
router again unless F fails.
B. CK5 and CK6 will negotiate which router should be active based on their IP
addresses.
c. CK5 will always take over the active role;there is no way for CK6 to remain
active once another router with a higher priority is on the network.
D. CK5 will become the active router, if it is configured to preempt.
E. CK6 will remain the active router because having a lower priority is better.

Answer: D

QUESTION 164:

A network administrator is using debug commands to check the performance of a
network. What steps can the administrator take to ensure that the "debug" will not
require too much CPU, or at least that she will not have to reboot the router to
disable debug? (multiple answer)

A. Make the debug command as specific as possible
B. Use the max-time parameter of the debug command
C. In configuration mode, enter scheduler interval 15
D. Configure a loopback to channel debug traffic

Answer: A,C

QUESTION 165:

Calculate the gain of an amplifier if 1 watt is applied to the imput and 2 watts is
measured at the output:

A. 0.5 dB
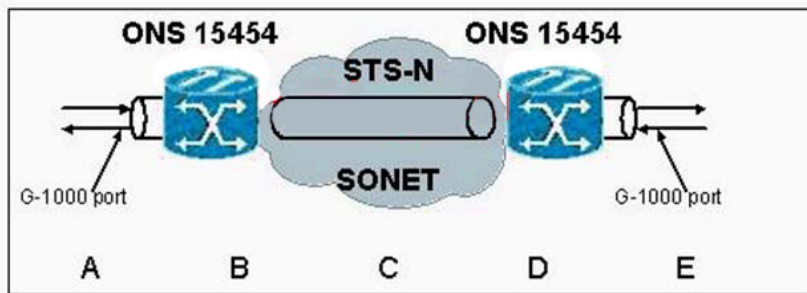B. 1 dB

C. 2 dB
D. 3 dB
E. 4 dB

Answer: D

QUESTION 166:

In a Resilient Packet Ring architecture, which is the highest level of priority in the
Intelligent Protection Switching (IPS) hierarchy?

A. Signal Fail
B. Forced Switch
C. Lockout of Protection
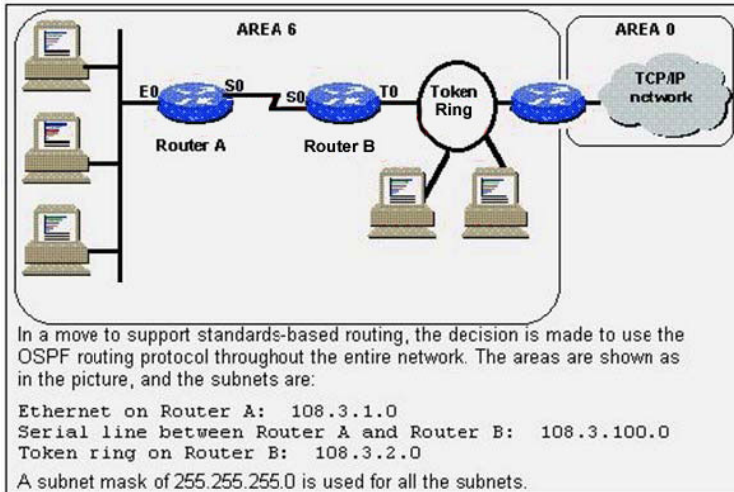D. Manual Switch

Answer: C

QUESTION 167:

Exhibit:

When the G-series card Rx interface at "A" in the diagram loses it's receive signal,
what occurs?

A. The G-series card at "A" reports link down and sends an AIS alarm upstream.
B. The G-series card at "A" reports link down, but the SONET path remains up.
C. The Tx signal on the G-series card at either end of the circuit is shut off, causing
the device connected to each G-series card to
report link down.
D. The Tx signal on the G-series at "A" is shut off, but the Tx signal on the G-series
at "E" remains on to maintain link integrity.

Answer: C

QUESTION 168:

Exhibit:

In a move to support standards-based routing, the decision is made to use the OSPF routing protocol throughout the entire network. The areas are shown as in the picture, and the subnets are:

```
Ethernet on Router A:  108.3.1.0
Serial line between Router A and Router B:  108.3.100.0
Token ring on Router B:  108.3.2.0
A subnet mask of 255.255.255.0 is used for all the subnets.
```

How should OSPF be configured on Router B?

A. router ospf
network 108.3.0.0
B. router ospf 1
network 108.3.100.0 0.0.0.255 area 6
network 108.3.2.0 0.0.0.255 area 6
C. router ospf 1
network 108.3.100.0 0.0.0.255 area 6
network 108.3.2.0 0.0.0.255 area 0
D. router ospf 1
network 108.3.100.0 255.255.255.0 area 6
network 108.3.2.0 255.255.255.0 area 6
E. router ospf 1
network 108.3.1.0 0.0.0.255 area 6
network 108.3.100.0 0.0.0.255 area 6
network 108.3.2.0 0.0.0.255 area 6

Answer: B

QUESTION 169:

What Q.931 message cannot be received in response to sending a Q.931 SETUP message?

A. Alerting
B. Call Proceeding
C. Connect
D. USER Information
E. Progress

Answer: D

QUESTION 170:

Where is the administrative unit pointer found in the STM-1 signal in SDH?

A. Path Overhead
B. Regenerator Section Overhead
C. Multiplexer Section Overhead
D. Line overhead

Answer: C

QUESTION 171:

What significant value to VSANs contribute?

A. VSANs are a logical segmentation of a physical switch into logical fabrics that allow customers to consolidate SAN islands.
B. VSANs are physical segmentations in a logical switch fabric that allow customers to create separate SAN islands.
C. VSANs are a logical segmentation of a physical fabric into Arbitrated loop topologies.
D. VSANs are physical boundaries between blades on the MDS.

Answer: A

QUESTION 172:

For Dispersion Shifted Fiber (DSF), the zero-dispersion wavelength generally occurs in the range:

A. 850 to 1100nm
B. 1300 to 1400nm
C. 1400 to 1500nm
D. 1500 to 1600nm

Answer: D

QUESTION 173:

What is the usual procedure taken if an unrecognized non-mandatory ISDN IE is received by a network?

A. Final handle the call
B. Final handle the call if 2 such IE is received
C. Ignore only if the IE received is not CS0, otherwise final handle the call

D. Send a Facility msg to the user notifying the user of sending unknown IEs but don't final handle
E. Ignore the IEs

Answer: E

QUESTION 174:

A router is receiving updates for a subnet from different routing protocols. The administrator wishes to take advantage of a path via a route with a less favorable Administrative Distance. What can be done to effect this without losing any of the updates?

A. Configure a static route with an Administrative Distance of 120
B. Use the Router Configuration mode command distance with an appropriate 'weight' for this subnet
C. Create a distribute-list to block this subnet
D. Modify the default-metric weight of the routing protocol offering the more favorable Administrative Distance

Answer: B

QUESTION 175:

If two routers connected to the same Ethernet are configured to run HSRP (Hot Standby Router Protocol) in the same group number, which router's MAC address will be associated with the virtual IP address?

A. It depends on which router is active.
B. Neither - a virtual MAC address will be assigned based on the group number, unless the routers are configured to use their burned in addresses (BIA).
C. The routers will negotiate and decide automatically which MAC address to use based on the routers' IDs.
D. Both routers' MAC addresses will be associated with the virtual IP address.
E. Neither - the hosts will broadcast all traffic which needs to travel off-segment.

Answer: B

QUESTION 176:

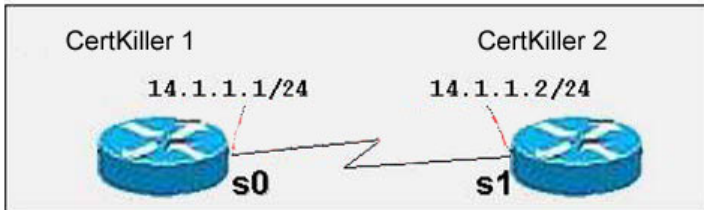To enable SONET payload scrambling on a POS interface, use what configuration command line?

A. pos scramble-atm in the global
B. pos scramble atm in the global
C. pos scramble-atm in the interface

D. pos scramble atm in the interface

Answer: C

QUESTION 177:

Exhibit:

Based on the information above, which OSPF configurations listed are valid?
(multiple answer)

A. Certkiller 1
router ospf 1
network 14.0.0.0 0.255.255.255 area 0
Certkiller 2
router ospf 1
network 14.0.0.0 0.255.255.255 area 0
B. Certkiller 1
router ospf 1
network 14.1.1.0 0.0.0.255 area 0
Certkiller 2
router ospf 2
network 14.1.1.0 0.0.0.255 area 0
C. Certkiller 1
router ospf 1
network 14.0.0.0 0.0.255.255 area 0
Certkiller 2
router ospf 1
network 14.1.0.0 0.0.0.255 area 0
D. Certkiller 1
router ospf 1
network 14.1.1.0 0.0.0.255 area 1
Certkiller 2
router ospf 1
network 14.1.0.0 0.0.255.255 area 0

Answer: A,B

QUESTION 178:

When a TCP segment is lost, the TCP sender reacts by: (multiple answer)

A. Resending the segment
B. Increasing the window size
C. Resetting the session
D. Increasing the amount of time it will wait when timing out the next segment that is sent

Answer: A,D

QUESTION 179:

What wavelength window does a C-Band amplifier use?

A. 1480-1510nm
B. 1510-1540nm
C. 1530-1560nm
D. 1570-1600nm

Answer: C

QUESTION 180:

Optical Supervisory Channel that connects Cisco DWDM active platforms is:

A. 192Kb/s and the 33rd Lambda
B. Ethernet Framed and the 33rd Lambda
C. 32nd Lambda and not framed
D. 10G and the 33rd Lambda

Answer: B

QUESTION 181:

What is the purpose of automatic gain control (AGC) in EDFA?

A. Compensates gain tilt
B. Balances transient power
C. Serves as a variable optical attenuator
D. Serves as a substitute to gain flattening filter

Answer: B

QUESTION 182:

What tool holds settings for GateWay/SNMP, GateWay/TL1 and GateWay/CORBA?

A. Add NE Wizard
B. Circuit Wizard
C. Control panel
D. PM graph
E. Subnetwork Explorer
F. Management Wizard

Answer: C

QUESTION 183:

What ISDN timer is started after Q.931 SETUP msg is sent?

A. T301
B. T303
C. T302
D. T310
E. T305

Answer: B

QUESTION 184:

MPLS traffic engineering routing information is carried by:

A. BGP MEDs
B. MP-BGP
C. OSPF Opaque LSAs or IS-IS TLVs
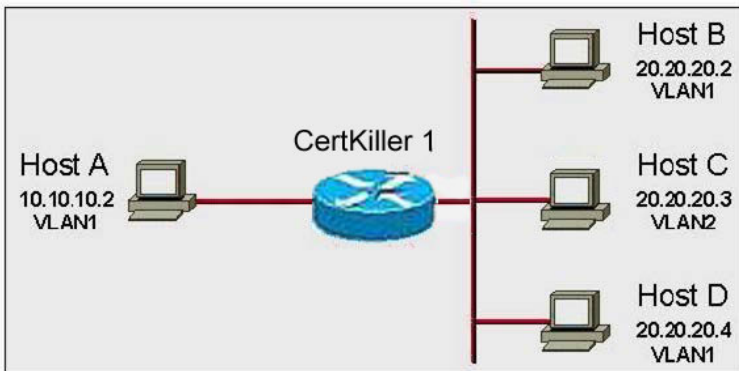D. RTP or RTCP packets

Answer: C

QUESTION 185:

In SDH the origin of a signal is an important factor in isolating trouble spots. Which
byte is tagged on the STM-1 signal to carry out this function?

A. H1 byte
B. J1 byte
C. D1 byte
D. K1 byte

Answer: B

QUESTION 186:

Exhibit:

Host D sends a frame to Host B at the same time that Host B sends a frame to Host D. Bridging is enabled on Certkiller 1, and the two frames collide into each other. Select the best explanation of why Host B will or will not receive the original frame from Host D:

A. Host B will receive the frame, since Hosts B & D are in the same VLAN.
B. Host B will receive the frame, since Hosts B and D are in the same routing domain.
C. Host B will not receive the frame, since Hosts B and D are in the same collision domain.
D. Host B will not receive the frame, since Hosts B and D are in different broadcast domains.
E. Host B will receive the frame, since Hosts B and D are in the same bridging domain.

Answer: C

QUESTION 187:

What part of the SDH frame can be used to identify and locate trouble between regenerators?

A. Path Overhead
B. Regeneration Section Overhead
C. Multiplex Section Overhead
D. Information Payload

Answer: B

QUESTION 188:

How far apart can optical amplifiers be spaced if they can amplify a signal 25 dB, and the cable looses 0.25 dB every kilometer?

A. 10 miles
B. 25 miles
C. 60 miles
D. 80 miles
E. 100 miles

Answer: C

QUESTION 189:

Which topologies are supprted in Storage Area Networks?

A. Linear Bus
B. Arbitrated Loop
C. Switched Fabric
D. Point-to-Point
E. Point-to-Multipoint

Answer: B,C,D

QUESTION 190:

What mechanism enables cut-through switches to process a frame with reduced latency?

A. The destination address is at or near the beginning of the frame.
B. The CRC is at the end of the frame.
C. The CRC is at or near the beginning of the frame.
D. The source address is at or near the beginning of the frame.
E. The data is compressed in the middle of the frame.

Answer: A

QUESTION 191:

Exhibit:
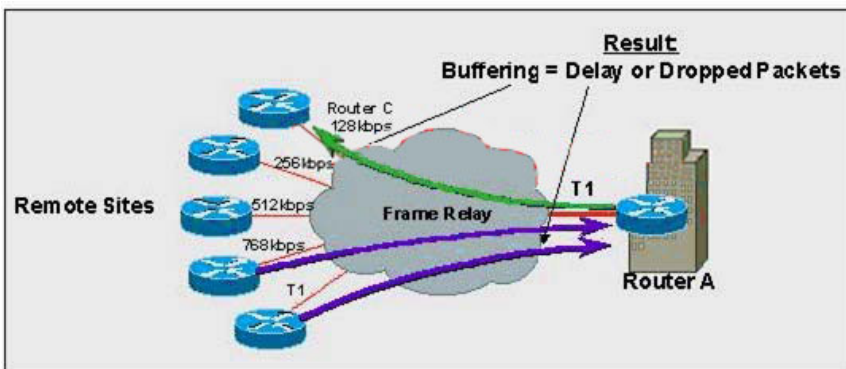
What mechanism should be employed to limit the "transmit rate" from Router A to Router C?

A. Committed Access Rate
B. Traffic Shaping
C. Weighted Fair Queuing
D. Packet Classifcation w/ Weighted Fair Queuing
E. None of the Above

Answer: B

QUESTION 192:

What signaling protocol does Cisco use to provide support for MPLS traffic engineering?

A. RSVP
B. LDP
C. SS7
D. TDP

Answer: A

QUESTION 193:
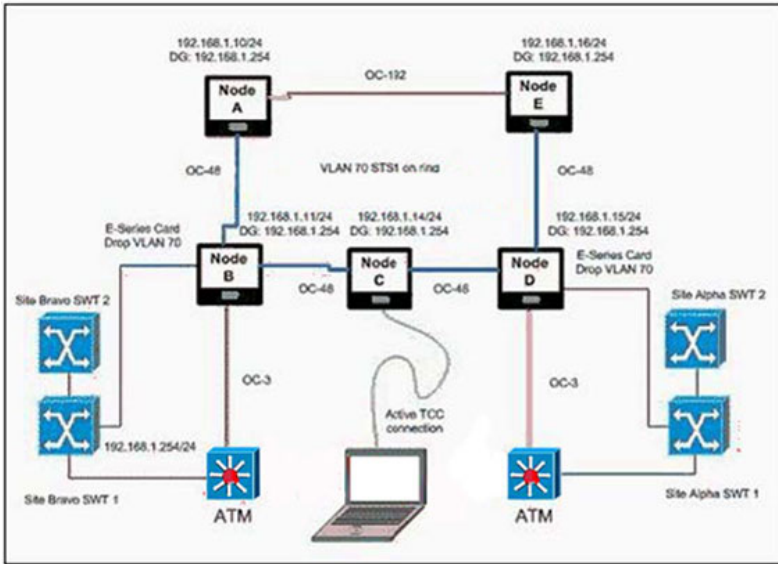
For an OC-48 signal (2.5Gb/s), what is the BER (bit error rate) if there is 1 bit error every four days?

A. 10E-12
B. 10E-13
C. 10E-14
D. 10E-15
E. 10E-16

Answer: D

QUESTION 194:

Exhibit:

In the figure, if OSPF were disabled on the DCC links between the nodes in the system:

A. The system would not auto-discover all nodes, and A-Z provisioning would not be possible to all nodes.
B. OSPF is by Default disabled on the DCC, it is only enabled when unusual remote access is needed.
C. Static routes would be needed in each node to facilitate connectivity between the nodes.
D. Only Gateway Network Element connected nodes would be auto-discovered.
VLAN 70 would act as the Data Control Network, and A-Z provisioning would be unavailable.

Answer: A,C,D

QUESTION 195:

Which form of SONET switching requires the exchange of the K1 and K2 bytes between adjacent multiplexer and/or cross-connect locations for switching to occur properly?

A. Unidirectional
B. 1+1
C. Path Level
D. Line Level

Answer: D

QUESTION 196:

Exhibit:

```
interface eth 0
ip add 10.0.0.1 255.255.255.0

router rip
network 10.0.0.0
passive-interface ethernet 0
neighbor 10.0.0.2
```

What statement is correct concerning the shown configuration?

A. Two RIP updates will be sent out on Ethernet 0: one broadcast to
255.255.255.255 and one unicast to 10.0.0.2.
B. Only one RIP update will be sent out on Ethernet 0 to the broadcast address
255.255.255.255, but no RIP updates will be received on Ethernet 0.
C. Two RIP updates will be sent out on Ethernet 0, one broadcast to 10.255.255.255
and one unicast to 10.0.0.2.
D. Only one RIP update will be sent out on Ethernet 0 to the unicast address
10.0.0.2.

Answer: D

QUESTION 197:

Corning Leaf fiber has a spec of 2.0 - 6.0 ps/(nm.km) for dispersion. Subtract 10%
from the 15454's OC-48 ELR dispersion tolerance for a margin of error. What is
the maximum distance a signal from an OC-48 100GHz ELR card can go before
becoming dispersion limited?

A. 270 km
B. 300 km
C. 810 km
D. 900 km

Answer: C

QUESTION 198:

In SNC/I protection, what does the "I" stand for?

A. Immediate Switching in case of failure
B. Intrusive Monitoring
C. Incomplete Protection
D. Inherent Monitoring
E. ITU-defined protection

Answer: D

QUESTION 199:

In terms of Chromatic Dispersion, how can the Maximum Distance be calculated?

A. Maximum Distance = DCU fiber length / Fiber Dispersion
B. Maximum Distance = Fiber Dispersion / Dispersion Tolerance
C. Maximum Distance = Dispersion Tolerance / Fiber Dispersion
D. Maximum Distance = Attenuation per Km / Dispersion Tolerance

Answer: C

QUESTION 200:

A Fast Ethernet connection supporting multiple VLANs is referred to as:

A. A circuit group
B. An emulated LAN (LANE)
C. A trunk
D. All of the above

Answer: C

QUESTION 201:

ITU-T G.692 standard makes what recommendation?

A. Optical Interfaces for Multi-channel Systems with Optical Amplifiers
B. Characteristics of a Dispersion-Shifted Single-Mode Fiber
C. Characteristics of Optical Fiber Amplifier Devices
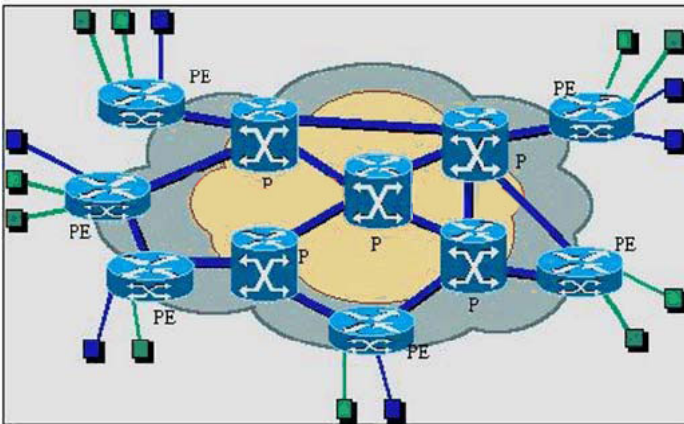D. Transmission characteristics of Passive Optical Components

Answer: A

QUESTION 202:

Which are the bytes in the SONET Line Overhead that point to the start of the floating Synchronous Payload Envelope?

A. A1, A2
B. B1, B2
C. H1, H2
D. K1, K2
E. J0, J1

Answer: C

QUESTION 203:

Exhibit:

Customers green and blue must communicate with each other. Which condition is required?

A. Customer Blue and Customer Green must use BGP for routing to the Internet.
B. Customer Blue and Customer Green must use unique addresses in their corporate networks.
C. All Service Provider routers must use BGP.
D. The Service Provider must provide BGP Peering to another Service Provider.

Answer: B

QUESTION 204:

For the spanning tree algorithm, a bridge builds part of its forwarding table based on:

A. Destination MAC addresses
B. 802.2 headers
C. Source MAC addresses
D. The Ethernet type field
E. The SNAP field

Answer: C

QUESTION 205:

Given an address of 10.1.1.1 with a subnet mask of 255.255.255.224, how many hosts can be addressed in this subnet?
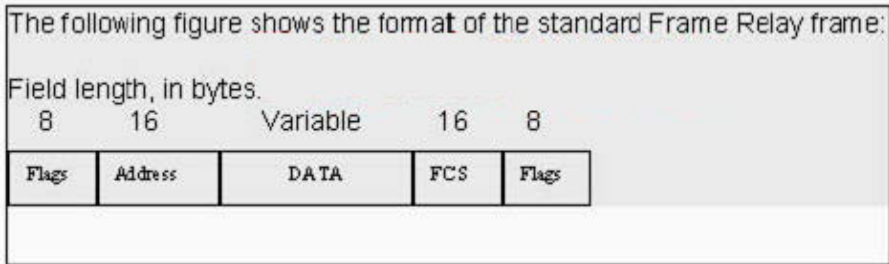
A. 16
B. 15

C. 30
D. 31
E. 63

Answer: C

QUESTION 206:

Exhibit:

The following figure shows the format of the standard Frame Relay frame:

Field length, in bytes.

Flags	Address	DATA	FCS	Flags
8	16	Variable	16	8

The address field contains: (multiple answer)

A. The DLCI Value
B. The Extended Address (EA)
C. Congestion Control
D. FCS

Answer: A,B,C

QUESTION 207:

How long is an ATM cell header?

A. 5 octets (bytes)
B. 3 octets (bytes)
C. 8 octets (bytes)
D. The size varies by AAL type used

Answer: A

QUESTION 208:

What is Forwarding Equivalence Class assignment NOT likely to be based upon?

A. Fragment offset
B. Destination address
C. Application protocol
D. Class of service

Answer: A

QUESTION 209:

Every time a typing mistake is made at the exec prompt of a router, the message
from the router indicates a lookup is being performed. Also, there is a waiting
period of several seconds before the next command can be typed. Can this behavior
be changed?

A. No, this is a built in feature of Cisco IOS
software.
B. Yes, use the no ip domain-lookup command.
C. Yes, use the no ip helper-address command.
D. Yes, use the no ip multicast helper-map command.
E. Yes, use the no exec lookup command.

Answer: B

QUESTION 210:

The ATM reference model is composed of which ATM layers? (multiple answer)

A. ATM layer
B. Physical layer
C. Modular layer
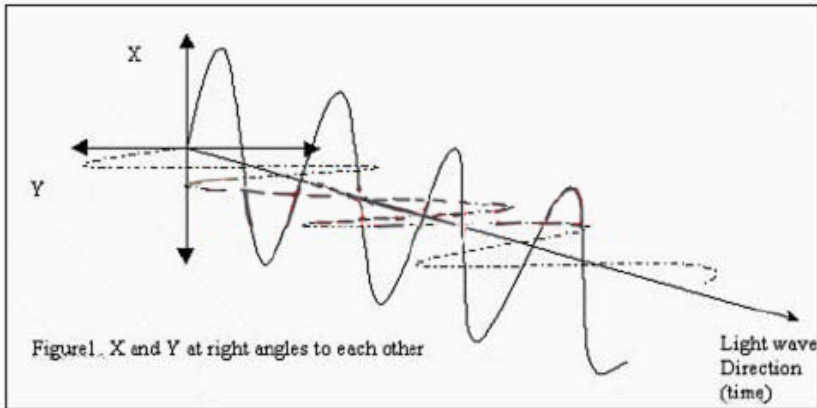D. ATM adaptation layer

Answer: A,B,D

QUESTION 211:

CIDR is primarily used:

A. In BGP only
B. For classless routing
C. In OSPF only
D. In EIGRP only

Answer: B

QUESTION 212:

Exhibit:

Figure1. X and Y at right angles to each other

Light wave Direction (time)

The exhibit shows the direction of light. What two mechanisms are represented by the transverse waves in the X and Y direction?

A. X= Rayleigh Scattering, Y= Four Wave Mixing
B. X= Electric Field, Y= Magnetic Field
C. X= Ultraviolet Absorption, Y = Infrared Absorption
D. X = Electric Field, Y - Attenuation

Answer: B

QUESTION 213:

Exhibit:
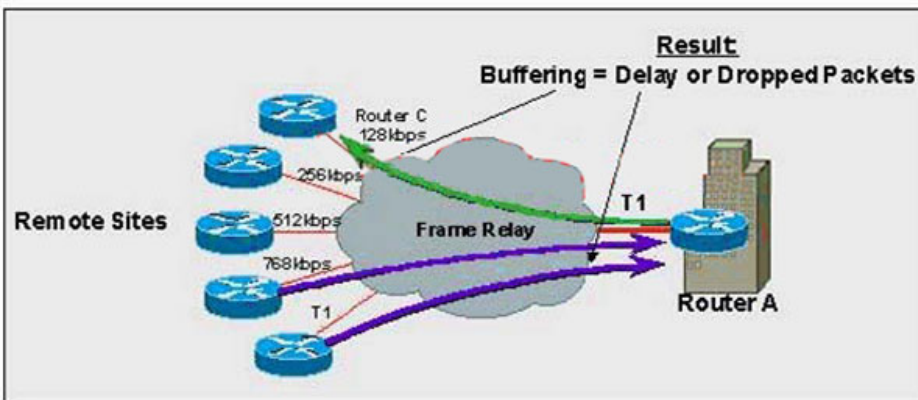
In the diagram shown, what mechanism needs to be employed on the remote site routers to aid congestion avoidance in the core, based on traffic priorities?

A. IP Precedence Tagging
B. Weighted Random Early Detection
C. Random Early Detection
D. Class Based Weighted Fair Queuing

Answer: A

QUESTION 214:

An incoming frame is received by a transparent bridge. If the destination address of the frame is not present in the database, the bridge will:

A. Discard the frame
B. Send out the frame on all interfaces, except on the interface where the frame originate
C. Put the destination MAC address in the table
D. Broadcast the frame on all interfaces
E. None of the above

Answer: B

QUESTION 215:

What are the three primary CTM product modules?

A. CTM Server, CTM Client, Gateway Modules
B. CTM Server, CTM Client, CiscoView
C. CTM Server, CiscoWorks 2000, CiscoView
D. CTM Server, Device Fault Manager, CiscoView

Answer: A

QUESTION 216:

Which two operational states can PVCs be in? (multiple answer)

A. Data transfer
B. Idle
C. Down
D. Shut

Answer: A,B

QUESTION 217:

What is NOT a key differentiator that Cisco offers to customers with the MDS that our competitors cannot?

A. VSANs
B. FCC
C. QoS
D. Port channeling

E. HSRP

Answer: E

QUESTION 218:

Below are four 'out' access-lists, configured on an interface. What list will block an IP packet with source address 144.23.67.94, destination address 197.55.34.254, destination TCP port 23 from leaving the router?

A. access-list 100 deny ip tcp 144.23.67.0 0.0.0.7 eq telnet 197.55.34.240 0.0.0.15 eq telnet
access-list 100 permit ip any any
B. access-list 100 deny tcp 144.23.67.94 0.0.0.7 any eq telnet
access-list 100 permit ip any any
C. access-list 100 deny tcp 144.23.67.86 0.0.0.7 eq telnet 197.55.34.240 0.0.0.15
access-list 100 permit ip any any
D. access-list 100 deny ip 144.23.67.94 0.0.0.7 host 144.23.67.94
access-list 100 permit ip any any

Answer: B

QUESTION 219:

Exhibit: *** MISSING ***
The graph represents optical signal power versus wavelength measurement from 1550nm to 1560nm. What is the approximate spacing between channels?

A. 0.4nm
B. 0.8nm
C. 1.6nm
D. 3.2nm
E. 1.0nm

Answer: B