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4A0-M01

Alcatel-Lucent IP/MPLS Mobile Backhaul Transport

Pass4sure

Exam A

QUESTION 1
When researching carrier-class Ethernet standards to support the mobile backhaul Ethernet transport, which standards body would you consult?

A. IEEE
B. MEF
C. ITU-T
D. NGMN

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 2
The IETF is know for which standardization effort?

A. It develops recommendations for core network functionality, broadband service delivery and next generation services
B. It maintains Requests for Comment (RFC) that describe technical solutions to Internet challenges
C. It creates single, integrated network design guidelines to support mobile broadband services
D. It develops radio access services and systems for high capacity mobile networks

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 3
Click on the exhibit.

```
A:MLS2# show port 1/2/2.3.5.1.1

=================================================================
TDM DS0 Chan Group
=================================================================
Description        : DS0GRP
Interface          : 1/2/2.3.5.1.1
TimeSlots          : 1-24
Speed              : 64               CRC              : 32
Admin Status       : up              Oper Status      : down
BER SF Link Down   : disabled
Last State Change  : 11/15/2011 13:37:42   Chan-Grp IfIndex : 574687879

Configured mode    : access          Encap Type       : atm
Admin MTU          : 1524            Oper MTU         : 1524
Scramble           : true
Physical Link      : no              Bundle Number    : none
Idle Cycle Flags   : n/a             Load-balance-algo : Default
Payload Fill Type  : n/a             Payload Pattern  : N/A
Signal Fill Type   : n/a             Signal Pattern   : N/A
Ing. Pool % Rate   : 100             Egr. Pool % Rate : 100
Egr. Sched. Pol    : N/A
=================================================================
...output truncated
```

Given the following:
· On the OC-3 port, each provisioned channel group contains all available timeslots.

The command result illustrates which circuit status?

A. The E1 channel group is administratively turned down
B. The DS1 circuit physical link is operationally down
C. The IMA bundle has no operational member links
D. The associated Layer 3 interface is operationallydown

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 4
In the Alcatel-Lucent SROS, which command creates the OC-3 path's Administrative Unit (AU)- 4 Virtual Container (VC) capacity?

A. configure port 3/1/2 sonet-sdh path au-4
B. configure port 3/1/2 sonet-sdh path sts3
C. configure port 3/1/2 sonet-sdh path tug-3
D. configure port 3/1/2 sonet-sdh path vc-4

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 5
Click on the exhibit.

```
A:MLS1# show port 1/2/1.1.2.2.1

========================================================================
TDM DS0 Chan Group
========================================================================
Description        : DS0GRP
Interface          : 1/2/1.1.2.2.1
TimeSlots          : 2-32
Speed              : 64                  CRC                : 16
Admin Status       : up                  Oper Status        : up
BER SF Link Down   : disabled
Last State Change  : 11/15/2011 12:41:41 Chan-Grp IfIndex   : 574652640

Configured mode    : access              Encap Type         : ipcp
Admin MTU          : 1502                Oper MTU           : 1502
Scramble           : false
Physical Link      : yes                 Bundle Number      : none
Idle Cycle Flags   : flags               Load-balance-algo  : Default
Payload Fill Type  : n/a                 Payload Pattern    : N/A
Signal Fill Type   : n/a                 Signal Pattern     : N/A
Ing. Pool % Rate   : 100                 Egr. Pool % Rate   : 100
Egr. Sched. Pol    : N/A
========================================================================
... output truncated
```

On the OC-3 port, each provisioned channel group contains all available timeslots The command result illustrates which OC-3 port characteristic?

A. On STS1-1,the second VT1.5 in the second VTG is set for IPCP encapsulation
B. On STS1-1,the second DS1 channel group in the second VTG isoperationallyup
C. On STS1-1, the second E1 channel group in the second TUG-2 is operationally up
D. On STS1-1, the second VT2 in the second TUG-2 is set for IPCP encapsulation

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 6
Which statement correctly describes the Point-to-Point (PPP) Multilink Protocol (MP) negotiation process?

A. At least one link must complete Link Control Protocol (LCP) negotiations before the bundle can initialize
B. The endpoints indicate their desire to implement MP in the link Network Control Protocol (NCP) phase
C. The bundle must complete LCP negotiations before it can enter the NCP negotiation phase
D. Internet Protocol-Control Protocol (IPCP) negotiations must succeed for the bundle links to initialize

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 7
In the Alcatel-Lucent SROS, which payload type set in a SDH-framed OC-12 port creates individual E1 containers?

A. Virtual Tributary (VT) 1.5
B. VT2
C. Virtual Container (VC)-11
D. VC-12

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 8
Click on the exhibit.

```
A:MLS2# show multilink-bundle

===============================================================================
Bundle Summary
===============================================================================
Bundle            Type     Admin   Oper    Port      Min    Total/
Id                         State   State   State     Links  Active Links
-------------------------------------------------------------------------------
bundle-ima-1/2.5  ima-grp  Up      Down    Link Up   2      4/2
-------------------------------------------------------------------------------
Bundles : 1
===============================================================================
```

The command result indicates which condition on the Inverse Multiplexing over ATM (IMA) bundle?

A. The number of active links has dropped belowthe minimum threshold
B. The associated Layer 3 interface is administratively down
C. The remote IMA bundle is administrativelydown
D. The parent OC-3 is operationally down

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 9
Which timing technique can deliver time of day and phase synchronization information to the base station without concern for Packet Delay Variation (PDV)?

A. Building Integrated Timing Supply (BITS)
B. Global Positioning System (GPS)
C. Adaptive Clock Recovery (ACR)
D. IEEE 1588v2/Precision Time Protocol (PTP)

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Explanation:

QUESTION 10
Which messages, periodically sent between an IEEE 1588v2/Precision Time Protocol (PTP) v2 master and slave, serve as hellos to help the slave choose the best available master?

A. Announce
B. Announce_grant
C. Sync
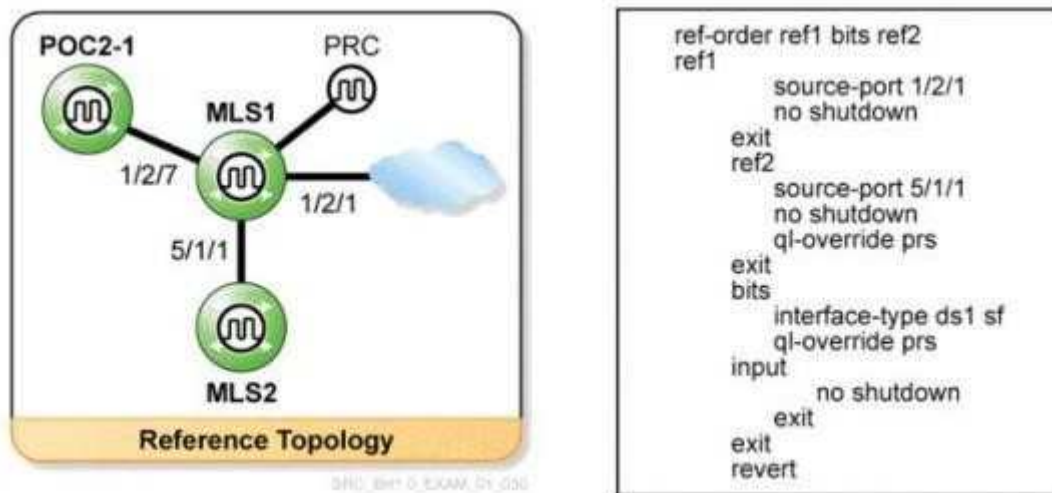D. Delay_response

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 11
Click on the exhibit.

Consider the topology and MLS1 configuration shown, and given the following conditions:

· MLS1 delivers the PRC traceable clock to the network · Reference 1 receives Quality Level (QL) - ST3
· Reference 2 receives QL - DUS
· BITS sets QL-STU

Which quality level will MLS1 deliver to POC2-1 on its Synchronous Ethernet (SyncE) port 1/2/7?

A. QL-EEC2
B. QL-PRS
C. QL-ST3
D. QL-STU

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 12
Click on the exhibit.

```
A:CSA2# show system ptp clock 1 ptp-port 1 peer 1

==============================================================================
Peer-1
==============================================================================
IP Address          : 192.0.2.0          static/dynamic        : static
Current Master      : TRUE
Description         : MLS1
Clock Id            : 0ca402fffe96b401 Port Number           : 1
GM Clock Id         : 0ca402fffe96b401 GM Clock Class        : 80
GM Clock Accuracy   : unknown(254)      GM Clock Variance     : not computed
GM Clock Priority1  : 128               GM Clock Priority2    : 128
Step Type           : one-step
Last Rx Anno Msg    : 11/22/2011 10:28:05


------------------------------------------------------------------------------
Unicast Info
------------------------------------------------------------------------------
Dir Type        Rate      Dur Result       Time                    Remain
------------------------------------------------------------------------------
Rx  Anno        1 pkt/2 s 300 granted      11/22/2011 10:25:56     172
    Sync        64 pkts/s 300 granted      11/22/2011 10:26:02     178
    DelayResp   64 pkts/s 300 granted      11/22/2011 10:26:02     178

==============================================================================
... output truncated
```

Given the show command results shown:
With what IEEE 1588v2/Precision Time Protocol (PTP) v2 message did the slave node set the Unicast message rates used by the master?

A. Announce granted
B. Announce request
C. Sync granted
D. Sync request

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 13
Which statement best describes adaptive timing techniques?

A. Adaptive timing calculates the time of day from time stamped packets
B. Adaptive timing calculates the time of day from the arriving packet rate
C. Adaptive timing only supports frequency synchronization
D. Adaptive timing only operates on point-to-point links

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 14
If an IEEE 1588v2/Precision Time Protocol (PTP) v2 slave times out announce messages with the master, to which state does the slave port transition to choose another potential master?

A. Initial

B. Listening
C. Passive
D. Un-calibrated

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 15
Click on the exhibit.

```
-----------------------------------------------
              ref-order external ref1 ref2
              ref1
                   source-ptp-clock 1
                   no shutdown
              exit
              ref2
                   source-port 1/2/7
                   no shutdown
                   ql-override prc
              exit
              external
                   input-interface
                        impedance high-impedance
                        no shutdown
                   exit
              exit
-----------------------------------------------
```

Given the configuration shown and the following conditions:
* The external reference is offline
* Reference 1 receives Quality Level (QL) - EEC1
* Reference 2 receives QL - SSU-A

Which quality level will the SAR router advertise to its Synchronous Ethernet (SyncE) peers?

A. QL-DNU
B. QL-EEC1
C. QL-SSU-A
D. QL-PRC
E. QL-UNC

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 16
Click on the exhibit.

```
A:CSA1# show system ptp clock 1

========================================================================
IEEE1588 PTP Clock Information
========================================================================
------------------------------------------------------------------------
Local Clock
------------------------------------------------------------------------
Clock Type         : ordinary,slave  Admin State       : up
Source I/F         : ptp_source       Clock MDA         : 1/2
PTP Profile        : ituTelecomFreq   Dynamic Peers     : not allowed
Clock ID           : 48f7f1fffe0663d6 Clock Class       : 255
Clock Accuracy     : unknown(254)     Clock Variance    : not computed
Clock Priority1    : 128              Clock Priority2   : 128
Domain             : 4               Two-Step          : unknown
------------------------------------------------------------------------
Operational Data
------------------------------------------------------------------------
Parent Clock ID    : 0ca402fffe96b401 Parent Port Number : 1
GM Clock Id        : 0ca402fffe96b401 GM Clock Class     : 80
GM Clock Accuracy  : unknown(254)     GM Clock Variance  : not computed
GM Clock Priority1 : 128              GM Clock Priority2 : 128
------------------------------------------------------------------------
Slave Port Index   : 1                Slave Port State   : slave
Slave Peer Index   : 1                Slave Peer IP      : 192.0.2.0
Forward Weight     : 96               Reverse Weight     : 4
```

Given the show command results shown:
Which IEEE 1588v2/Precision Time Protocol (PTP) v2 parent clock value does the slave first consider when choosing its master?

A. GM Clock Priority1
B. GM Clock ID
C. GM Clock Priority2
D. GM Clock Class

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 17
An SROS router obtains its timing exclusively from its BITS input port. The router sets Quality Level (QL) SONET Traceability Unknown (STU) on this Superframe (SF) framed DS1 BITS reference.
What must you configure on this master router to pass the best clock quality level to the downstream Synchronous Ethernet (SyncE) slave nodes while maintaining traceability to the DS1 source?

A. Enable "ql-override prs" on the BITS reference
B. Enable "ql-override prs" on the master's SyncE ports
C. Enable "ql-selection prs" on the BITS reference
D. Set the master router to choose its source by quality level
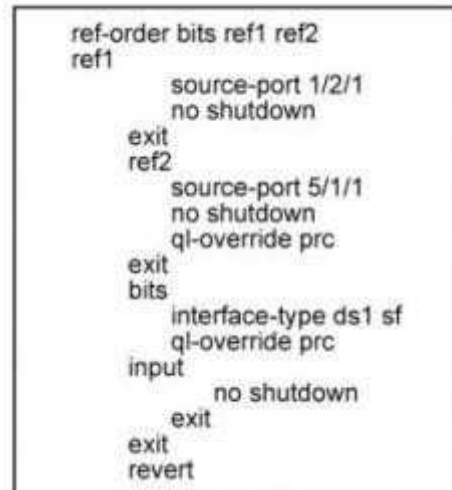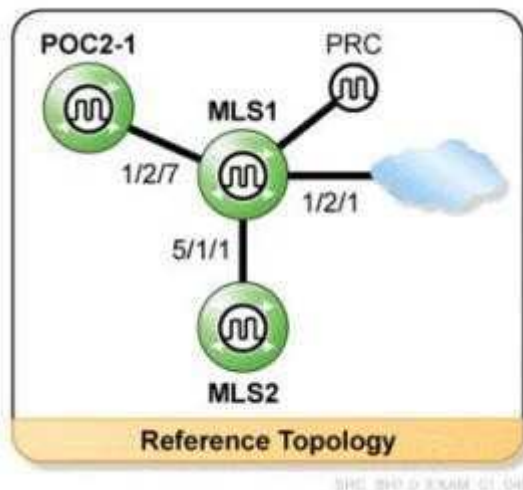
Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 18
Click on the exhibit.

Reference Topology

```
ref-order bits ref1 ref2
ref1
        source-port 1/2/1
        no shutdown
    exit
    ref2
        source-port 5/1/1
        no shutdown
        ql-override prc
    exit
    bits
        interface-type ds1 sf
        ql-override prc
    input
            no shutdown
        exit
    exit
    revert
```

Consider the topology and MLS1 configuration shown, and given the following conditions:

* MLS1 delivers the PRC traceable clock to the network
* Reference 1 receives Quality Level (QL) - EEC1
* Reference 2 receives QL - SSU-A
* BITS sets QL-SSU-B
Which quality level will MLS1 deliver to POC2-1 on its Synchronous Ethernet (SyncE) port 1/2/7?

A. QL-EEC1
B. QL-PRC
C. QL-SSU-A
D. QL-STU

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 19
Which synchronization technique supports time of day and phase synchronization?

A. IEEE 1588 v2/Precision Time Protocol (PTP)v2
B. Adaptive Clock Recovery (ACR)
C. Time Division Multiplexing (TDM) line timing
D. Synchronization Ethernet (SyncE)/Synchronization Status Message (SSM)

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 20
Which is a characteristic of the IEEE 802.3 Slow Protocol?

A. There are a maximum of 10 frames transmitted per second
B. There are a maximum of 20 slow protocol subtypes per interface
C. The maximum slow protocol frame size is 64 bytes
D. The slow protocol header carries the clock quality level

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 21
Which statement best describes phase synchronization as it is used in the backhaul transport?

A. The master and slave clocks cycle at a rate within 50 parts per billion (ppb)
B. The master and slave clockframes start within +/- 500 nanoseconds
C. The slave clock sets its clock frequency to the incoming bit rate
D. The slave sets its time and date accordingly to the arriving packet rate

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 22
Which command example correctly configures a 7750 Service Router (SR) for Synchronous Ethernet (SyncE) support?

A. configure card 1 mda 1 sync-e
B. configure card 1 ethernet sync-e
C. configure system sync-if-timing sync-e no shutdown
D. configure port 1/1/1 ethernet sync-e no shutdown

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 23
Which component must you configure on an IEEE 1588v2/Precision Time Protocol (PTP) v2 slave to enable it to choose its master based on Synchronization Status Message (SSM) Option 1 or Option 2 Quality Levels?

A. Setthe PTP porttothe desired ITU-T G.781 Option 1 or2 mode
B. Setthe SROS IEEE 1588v2 profile to IEEE 1588-2008
C. Set the SROS IEEE 1588v2 profile to ITU-T G.8265.1
D. Configure ql-override on the PTP reference entry

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 24
Click on the exhibit.

Reference Topology

```
                                    ql-selection
                                    ref-order bits ref1 ref2
                          ref1
                                        source-port 1/2/1
                                        no shutdown
                                    exit
                                    ref2
                                        source-port 5/1/1
                                        no shutdown
                                        ql-override prs
                                    exit
                                    bits
                                        interface-type ds1 sf
                                        input
                                            no shutdown
                                        exit
                                    exit
                                    revert
```
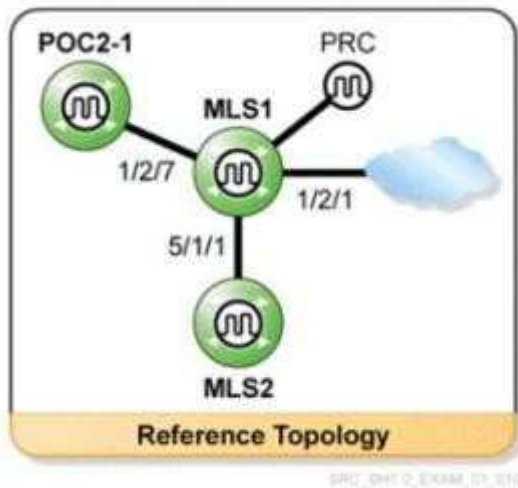
Consider the topology and MLS1 configuration shown, and given the following conditions:

· MLS1 delivers the PRC traceable clock to the network · Reference 1 receives Quality Level (QL) - PRS
· Reference 2 receives QL - DUS
· BITS sets QL-STU

Which quality level will MLS1 deliver to POC2-1 on its Synchronous Ethernet (SyncE) port 1/2/7?

A. QL-DUS
B. QL-EEC2
C. QL-PRS
D. QL-STU

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 25
Click on the exhibit.

```
A:MLS1>config>router>bgp# info
--------------------------------------------------
            group "Cluster"
                next-hop-self
                type internal
                cluster 10.10.10.10
                peer-as 65000
                neighbor 192.0.2.2
                exit
                neighbor 192.0.2.3
                exit
            exit
            no shutdown
--------------------------------------------------
```

Based on the default SROS Border Gateway Protocol (BGP) timer settings and the configuration shown:

If the Interior Gateway Protocol (IGP) removes its route to the BGP neighbor 192.0.2.2, how long will BGP wait to drop its peering session with that neighbor router?

A. 0 seconds
B. 30 seconds
C. 90 seconds
D. 170 seconds

Correct Answer: C
Section: (none)
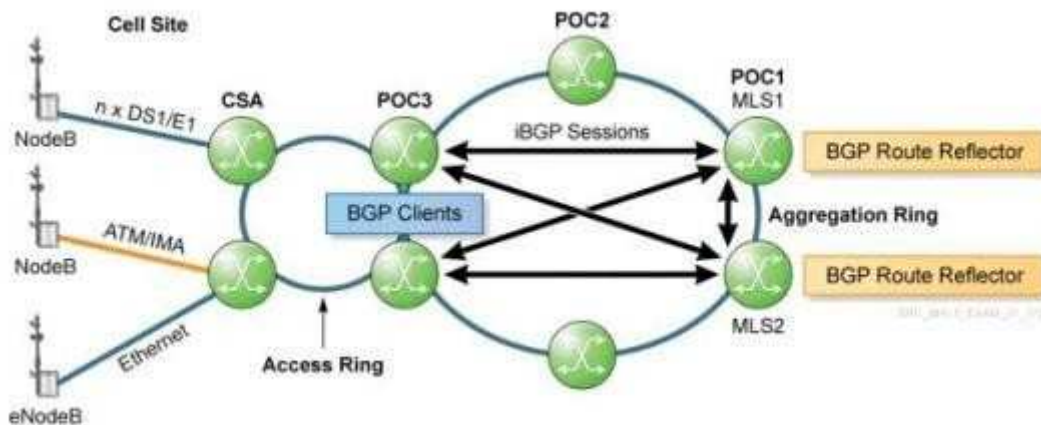**Explanation**

Explanation/Reference:
Explanation:

QUESTION 26
Click on the exhibit.

Given the topology shown:
With Border Gateway Protocol (BGP) peer tracking enabled, what will router MLS1 do if the Interior Gateway Protocol (IGP) removes the route to its BGP peer MLS2 system ID?

A. Itwill lookforan alternate route reflection peer
B. It will shut down BGP route reflection
C. It will set its peering session state to connect
D. It will try to peer with one of the POC3 routers

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 27
Click on the exhibit.
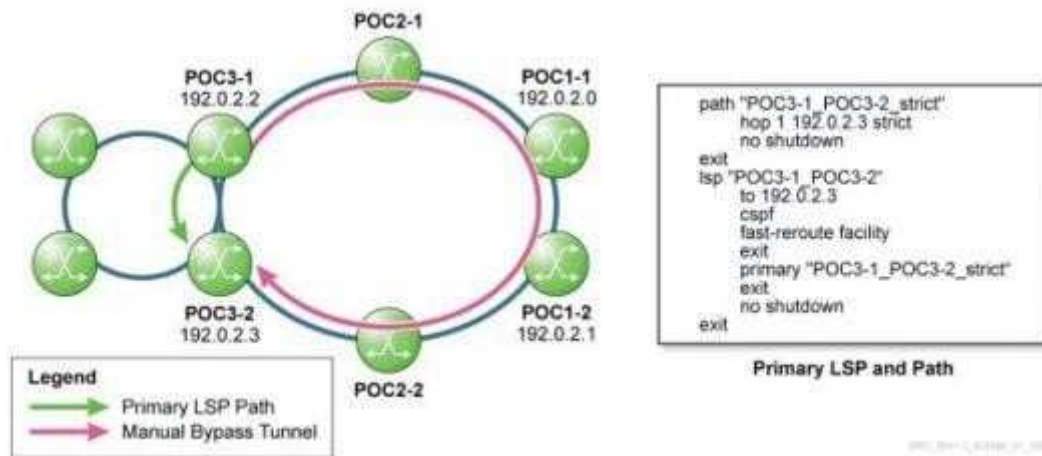
POC2-1

POC3-1
192.0.2.2

POC1-1
192.0.2.0

POC3-2
192.0.2.3

POC1-2
192.0.2.1

POC2-2

Legend
→ Primary LSP Path
→ Manual Bypass Tunnel

```
path "POC3-1_POC3-2_strict"
    hop 1 192.0.2.3 strict
    no shutdown
exit
lsp "POC3-1_POC3-2"
    to 192.0.2.3
    cspf
    fast-reroute facility
    exit
    primary "POC3-1_POC3-2_strict"
    exit
    no shutdown
exit
```

Primary LSP and Path

Given the topology and the Multiprotocol Label Switching (MPLS) Label Switch Path (LSP) and path configurations shown:

You wish to protect the LSP POC3-1_POC3-2 with a manual bypass tunnel. Which statement correctly describes the manual bypass tunnel configuration requirement for the ring topology shown?

A. All nodes must have manual bypass enabled in the MPLS context
B. All nodes must have fast reroute facility enabled in the MPLS context.
C. The bypass tunnel first hop must avoid the protected LSP's tail end router
D. Each node must have a bypass-only tunnel configured to terminate on POC3-2

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 28
Click on the exhibit.

```
A:MLS1# show router bgp neighbor

===============================================================================
BGP Neighbor
===============================================================================
-------------------------------------------------------------------------------
Peer   : 192.0.2.2
Group  : Cluster
-------------------------------------------------------------------------------
Peer AS              : 65000          Peer Port           : 179
Peer Address         : 192.0.2.2
Local AS             : 65000          Local Port          : 50547
Local Address        : 192.0.2.0
Peer Type            : Internal
State                : Established     Last State          : Active
Last Event           : recvKeepAlive
Last Error           : Cease
Local Family         : IPv4
Remote Family        : IPv4
Hold Time            : 90             Keep Alive          : 30
Active Hold Time     : 90             Active Keep Alive   : 30
Cluster Id           : 10.10.10.10
Preference           : 170            Num of Update Flaps : 0
...
```

Which field in the show command result indicates that the router MLS1 is configured as a Border Gateway Protocol (BGP) route reflector?

A. Peer Type;
B. Group:
C. Peer AS:
D. Cluster Id:

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 29
Click on the exhibit.

```
A:MLS1# show router static-route

=================================================================
Static Route Table (Router: Base)  Family: IPv4
=================================================================
Prefix                              Tag       Met    Pref Type Act
   Next Hop                         Interface
-----------------------------------------------------------------
192.0.2.1/32                        0         1      5    NH   Y
   192.0.2.29                       MLS1_MLS2
192.0.2.2/32                        0         1      5    NH   Y
   192.0.2.17                       MLS1_CSA1
192.0.2.2/32                        0         1      10   NH   N
   192.0.2.29                       n/a
-----------------------------------------------------------------
No. of Static Routes: 3
=================================================================
```

With the information given, why is the second static route to prefix 192.0.2.2/32 inactive?

A. The second route is a black hole static route
B. The static route is missing a next hop entry
C. A route with a better preference is active
D. The next hop interface is unreachable

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 30
Click on the exhibit.
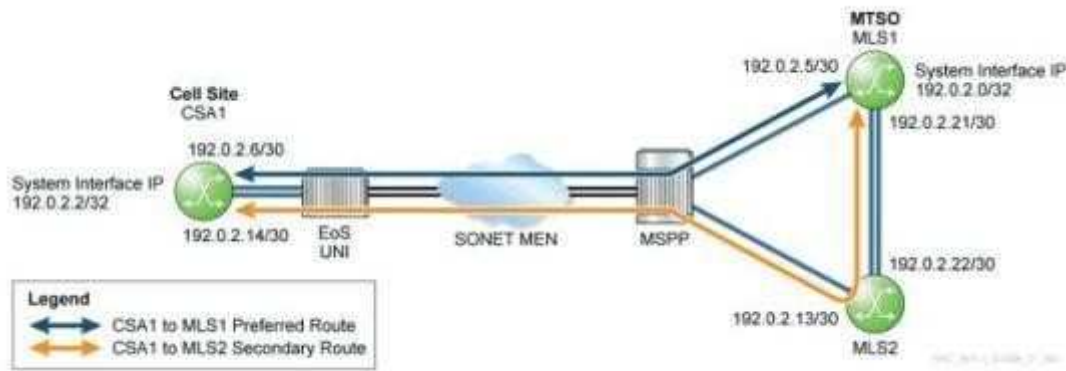
You wish to configure a secondary static route on MLS1 targeting the CSA1 system interface. The route must forward packets over the secondary route path as shown in the diagram. Given the following:

· BFD must be enabled on the preferred route
· BFD is configured on the interfaces
· The MLS1 router must choose the preferred route in normal operations

Which command example correctly configures the secondary static route on MLS1?

A. configure router static-route 192 0.2.2/32 next-hop 192.0.2.6 bfd-enable
B. configure router static-route 192.0.2.6/32 next-hop 192.0.2.22 bfd-enable
C. configure router static-route 192.0.2.2/32 next-hop 192.0.2.14 precedence 10
D. configure router static-route 192.0.2.2/32 next-hop 192.0.2.22 precedence 10

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 31
Which statement correctly describes a Versatile Service Module (VSM) Layer 2 and Layer 3 service cross-connect's operation?

A. Layer 3 Service Access Points (SAPs) must use the "A" paths; Layer 2 services use the B path
B. The Cross Connect Aggregation Group (CCAG) B path can optionally act as a hot standby path for the A path
C. A CCAG may rate limit the A or B path all the way up to the maximum CCAG available bandwidth
D. For resiliency, the CCAG distributes each conversation flow across multiple Cross Connect Adapters (CCA)

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 32
Which statement correctly describes Virtual Routing and Redundancy Protocol (VRRP) configuration?

A. The router assigns priority 100 to a non-owner VRRP interface by default
B. An interface can only be a member of a single Virtual Router ID (VRD)
C. An owner mode VRID can back up as many as sixteen virtual gateway addresses

D. An owner mode VRID requires a backup address not used by the physical interfaces

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 33
Choose the two SAP identifiers that a Cross Connect ID (CCID) can bind to create a bi- directional Layer 2 and Layer 3 service cross connect. (Choose two.)

A. sap 1/1/9:100:200
B. sap 1/1/8:100:200
C. sapccag-l.a:l00
D. sapccag-2.a:100
E. sapccag-1.b:100
F. sap ccag-2.b:200

Correct Answer: CE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 34
Click on the exhibit
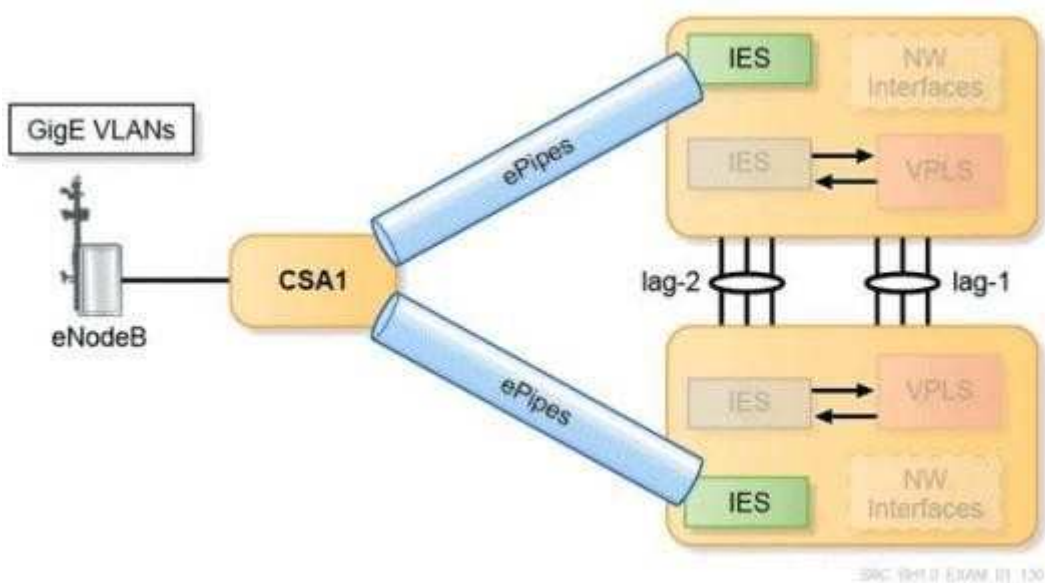
Given the diagram shown and the following information:

· Configured on the CSA1 router is an ePipe with redundant spoke Service Distribution Points (SDPs)
· The spoke SDPs terminate on Internet Enhanced Services (IES) interfaces configured on each of the two remote Provider Edge (PE) routers.

Which statement correctly describes how the remote PEs signal Maximum Transmission Unit (MTU) values for the ePipe spoke terminations?

A. The remote PE routers signal the default IES service 1514 byte MTU to the CSA1 router
B. The remote PE routers signal the IES spoke SDP Virtual Circuit (VC)-MTU based on the SDP path MTU
C. The PE routers set the service MTUs to the lowest negotiated value
D. The remote PE routers must signal a VC-MTU equal to the ePipe service MTU plus the Ethernet header size

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 35
Click on the exhibit

```
A:MLS1>config>service>vprn# info
-----------------------------------------------
    description "3G Voice VPRN"
    router-id 198.51.100.0
    route-distinguisher 65100:2
    interface "L3_VLAN402" create
        description "Cross connect to 3G SM Inner VPLS"
        address 198.51.100.65/27
        vrrp 1
            backup 198.51.100.67
            priority 230
            ping-reply
        exit
    sap 1/1/9:2 create
        exit
```

```
A:MLS2>config>service>vprn# info
-----------------------------------------------
    description "3G Voice VPRN"
    router-id 198.51.100.1
    route-distinguisher 65100:2
    interface "L3_VLAN402" create
        description "Cross connect to 3G SM Inner VPLS"
        address 198.51.100.66/27
        vrrp 1
            backup 198.51.100.67
            priority 220
            ping-reply
        exit
    sap 1/1/9:2 create
        exit
         exit
```

Given the configurations shown and the following information:

· Multilayer Switch (MLS) 1 and 2 host duplicate Virtual Private Routed Network (VPRN) services.

· Configured on the interfaces L3_VLAN402 is Virtual Router ID (VRID) 1 Your customer states that if the master interface fails and recovers, they want traffic to remain on the VRID backup interface.

What must you change in the configuration shown to keep the VRID from moving traffic back to the master?

A. set a revert time value of infinity
B. configure no preempt in the VRID
C. set both interface priorities to the default
D. set MLS1 interface L3_VLAN402 to priority 255

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 36
Click on the exhibit.
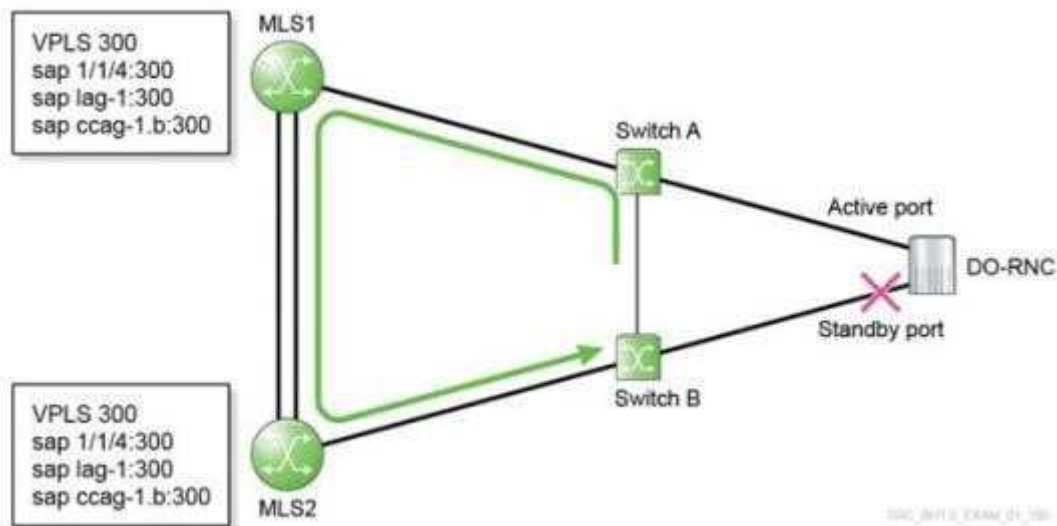
Given the diagram
On the MLS routers, you wish to configure a Management Virtual Private LAN Service (mVPLS) running Spanning Tree Protocol (STP) on behalf of VPLS 300. What must you configure on the MLS routers? (Choose two.)

A. Configure mVPLS Service Access Points (SAPs) on the same access ports as used in the VPLS 300 service
B. Configure mVPLS SAPs with the same Virtual LAN (VLAN) tags as those used on the VPLS 300 SAPs
C. Turn up STP on each of the MLS1 and MLS2 VPLS 300 SAP physical access ports
D. Create a managed VLAN list on each mVPLS SAP for all protected VPLS 300 VLANs
E. Provision the mVPLS SAPs with unique VLAN tags within the VPLS 300 service context

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 37

A network element (NE) forwards external traffic through a Virtual Routing and Redundancy Protocol (VRRP) protected gateway interface. If the master goes offline, how does the NE learn to forward traffic to the new master interface?

A. Upon assuming the master role, the new master advertises its presence through Gratuitous Address Resolution Protocol (ARP) messages
B. The master updates the forwarding table entries by delivering all frames into the network using the virtual Media Access Control (MAC) source address
C. The network elements use their current gateway interface ARP cache entry or send out an ARP request if the entry is timed out
D. The new master interface delivers the new virtual interface MAC address into the network via Master Advertisement Messages

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 38
Which statement correctly describes SROS Virtual Private Wire Service (VPWS) endpoint characteristics?

A. An implicit endpoint may have both a SAP and a spoke SDP object
B. Within a local service context a router willonlyforward traffic between objects in different endpoints
C. An explicit ePipe service endpoint may have up to four associated SAP objects, but only one forwarding
D. An explicit endpoint may contain up to four primary pseudowire objects to support load balancing

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 39
Click on the exhibit.

```
epipe 10 customer 1 create
            description "3G_BTS10"
            endpoint "epipe10" create
            exit
            sap 1/2/1:1 create
            exit
            spoke-sdp 1:10 endpoint "epipe10" create
                precedence primary
            exit
            spoke-sdp 2:10 endpoint "epipe10" create
            exit
            no shutdown
        exit
```

Given the local Provider Edge (PE) router configuration shown and the following condition:

· All Service Access Points (SAPs) and spoke SDPs are operational

Upon startup, which pseudowire status value will the local PE router signal for the standby spoke SDP?

A. 0x00,Pseudowire forwarding
B. 0x01,Pseudowire not forwarding
C. 0x20, Pseudowire forwarding Standby
D. 0x21,Pseudowire in standby and not forwarding

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 40
Click on the exhibit

```
ipipe 100 customer 1 create
         description "Distributed iPipe for 3G IPoTDM services"
         endpoint "ipipe100" create
             standby-signaling-master
         exit
         sap bundle-ppp-1/1.2 create
             ce-address 203.0.113.50
             ipcp
                 assign-peer-ce-addr
                 dns 198.51.100.250
             exit
         exit
         spoke-sdp 1:100 endpoint "ipipe100" create
             ce-address 203.0.113.51
             precedence primary
         exit
         spoke-sdp 2:100 endpoint "ipipe100" create
             ce-address 203.0.113.51
         exit
         no shutdown
```

Given the cell site router configuration shown:
The local Provider Edge (PE) router originates a redundant iPipe service terminated on each of two remote PE routers.

Which statement correctly describes the iPipe service operation?

A. The local PE router will assign to the Customer Edge (CE) device the IP address defined in the SAP DNS context
B. The remote PEs will load-balance base station destined packets through both return spoke SDPs
C. The remote PE routers forward base station packets through the iPipe service associated with the active spoke SDP
D. The local PE router signals the base station's IP address to the remote PE in the Targeted Label Distribution Protocol (T-LDP) label messages

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 41
As cells enter an aPipe service configured for vc-type atm-vcc, how does the ingress Provider Edge (PE)

router handle the cell header Virtual Path Identifier/Virtual Channel Identifier (VPI/VCI) values?

A. The PE strips the cell headers and transports just the payload with a control word
B. The PE replaces the VPI/VCI with the MPLS service label and control word
C. The PE replaces the VPI/VCI with another set defined within the service context
D. The PE transports the original VPI/VCI along with the payload to the egress PE
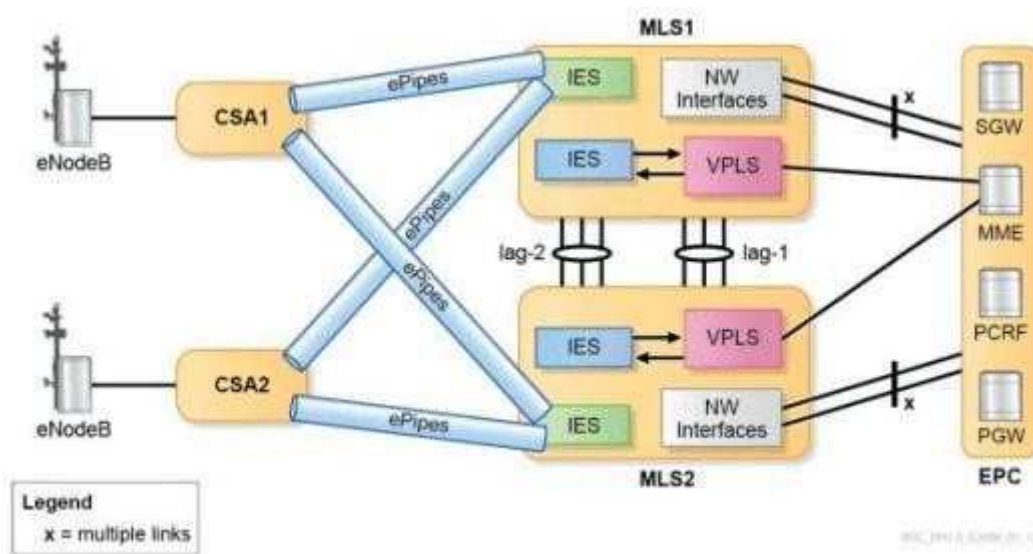
Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 42
Click on the exhibit

Which statement correctly describes eNodeB-to-eNodeB X2 interface traffic flow in the Model 1 hub and spoke architecture Long Term Evolution (LTE) service model shown?

A. X2 traffic travels through the red Virtual Private LAN Service (VPLS) tothe Mobility Management Entity (MME) pool and on to the target CSA router
B. The green Internet Enhanced Service (IES) provides the Layer 3 interfaces used for X2 eNodeB-to-eNodeB handoff traffic
C. Split horizon allows direct eNodeB-eNodeB handoff without the need to route through the green IES interfaces
D. The red VPLS supports Virtual Routing and Redundancy Protocol (VRRP) sessions for X2 inter-eNodeB Layer 3 interface resiliency

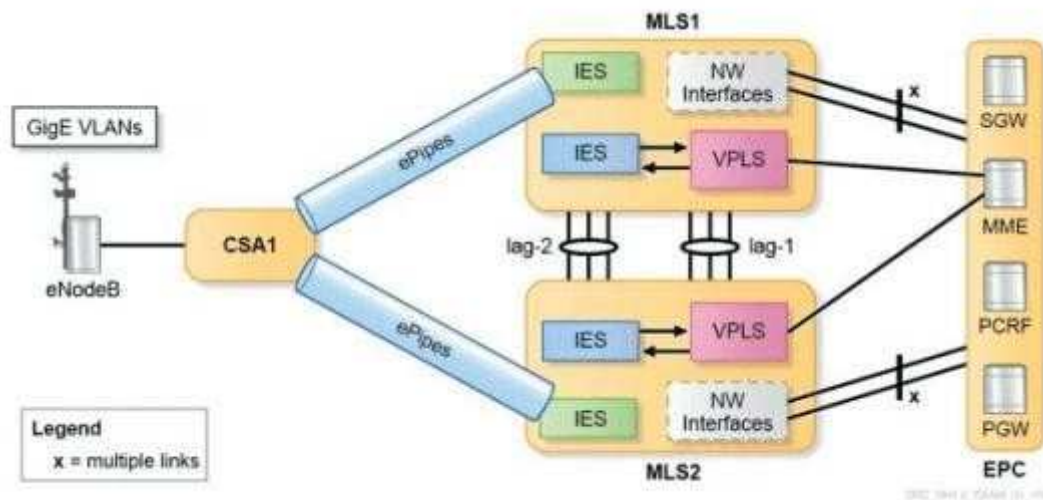**Correct Answer:** B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 43
Click on the exhibit

Which statement correctly describes the Model 1 hub and spoke architecture Long Term Evolution (LTE) service model shown?

A. The blue Internet Enhanced Service (IES) SAP interfaces include static Media Access Control (MAC) address entries for the eNodeBs
B. The red Virtual Private LAN Service (VPLS) provides the Layer 2 transport to support blue IES Virtual Routing and Redundancy Protocol (VRRP) sessions
C. The green IES spoke SDP interfaces include static MAC address entries for the eNodeBs
D. The blue IES interfaces forward traffic to external networks and the mobile core

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 44
Click on the exhibit.

```
A:MLS1# show router 2 vrrp instance

========================================================================
VRRP Instances
========================================================================
Interface Name                 VR Id Own Adm  State      Base Pri   Msg Int
                               IP        Opr  Pol Id     InUse Pri  Inh Int
------------------------------------------------------------------------
L3_VLAN402                     1     No  Up   Backup     230        1
                               IPv4      Up   n/a        230        No
   Backup Addr: 198.51.100.67
------------------------------------------------------------------------
Instances : 1
========================================================================
```

```
A:MLS2# show router 2 vrrp instance

========================================================================
VRRP Instances
========================================================================
Interface Name                 VR Id Own Adm  State      Base Pri   Msg Int
                               IP        Opr  Pol Id     InUse Pri  Inh Int
------------------------------------------------------------------------
L3_VLAN402                     1     No  Up   Master     220        1
                               IPv4      Up   n/a        220        No
   Backup Addr: 198.51.100.67
------------------------------------------------------------------------
Instances : 1
========================================================================
```

Given the show command results shown and the following information;

* MLS1 interface L3_VLAN402 is the preferred Virtual Router ID (VRID) 1 master interface
* The master interface failed and later recovered

Why does the MLS2 interface L3_VLAN402 remain in the Master state?

A. You must configure a VRRP policy to control master recovery time
B. The VRRP VRID 1 configuration disallows preempting the existing master
C. SROS requires operator intervention to recover the VRRP master interface
D. The Layer 2 interface carrying the VRRP announcements is operationally down

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 45
Which statement is correct concerning spoke SDP use in point-to-point services?

A. Each service requires its own set of SDPs
B. The spoke SDP must specify the vc-type of the service transported
C. SDP bindings must include the service encapsulation type value
D. An explicit endpoint may have up to four spoke SDP bindings
E. Each service includes two default explicit endpoints

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 46
Click on the exhibit

```
A:CSA2# show router ldp bindings service-id 300

======================================================================
LDP LSR ID: 192.0.2.3
======================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        TLV - (Type, Length: Value)
======================================================================
LDP Service FEC 128 Bindings
======================================================================
Type   VCId      SvcId      SDPId  Peer           IngLbl    EgrLbl   LMTU  RMTU

E-Eth  300       300        1      192.0.2.0      131061U   131056D  1500  1536
E-Eth  300       300        2      192.0.2.1      131060U   131058D  1500  1536
----------------------------------------------------------------------
No. of VC Labels: 2
======================================================================
...output truncated
```

Given the show command result shown and the following information:

· The local Provider Edge (PE) ePipe 300 service uses redundant pseudowires spoke-terminated into Internet Enhanced Service (IES) interfaces on two separate remote PE routers. · Changes made to the service configuration must not affect the operation of other services.

What change can you make to the interconnected services to correct the spoke SDP Egress Label status highlighted?

A. Enable standby-signalling-master in the ePipe primary spoke SDP binding
B. Adjust the local PE SDP 1 and 2 SDP path Maximum Transmission Unit (MTUs) to match the IES service MTU
C. Adjust the remote PE IES spoke interface IP-MTUs to match the ePipe service Virtual Circuit (VC)-MTU
D. Configure one of the ePipe 300 spoke SDP bindings as endpoint precedence primary

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 47
Which statement is true concerning aPipe ATM cell mode versus ATM Adaptation Layer (AAL) 5 Service Data Unit (SDU) frame mode?

A. AAL5 SDU frame mode supports ATM cell concatenation
B. ATM cell mode can bind multiple virtual circuits to a single service
C. AAL5 SDU frame mode passes the cell header with the payload
D. ATM cell mode requires a control word for cell reordering

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 48
Click on the exhibit

```
A:CSA1# show service id 200 base

====================================================================
Service Basic Information
====================================================================
Service Id         : 200
Service Type       : Apipe          VLL Type         : ATMVCC
Description        : 3G_BTS02
Customer Id        : 1
Last Status Change: 12/05/2011 08:18:21
Last Mgmt Change   : 12/05/2011 08:17:51
Admin State        : Up             Oper State       : Up
MTU                : 1508
Vc Switching       : False
SAP Count          : 1              SDP Bind Count   : 2

--------------------------------------------------------------------
Service Access & Destination Points
--------------------------------------------------------------------
Identifier                          Type     AdmMTU  OprMTU  Adm  Opr
--------------------------------------------------------------------
```

Given the show result shown:
Which example shows the proper format for a Service Access Point (SAP) configured within this service context?

A. sapbundle-ppp-1/2.1:1/200
B. sap bundle-ima-2/1.1:1
C. sap 1/1/1.1:200.20
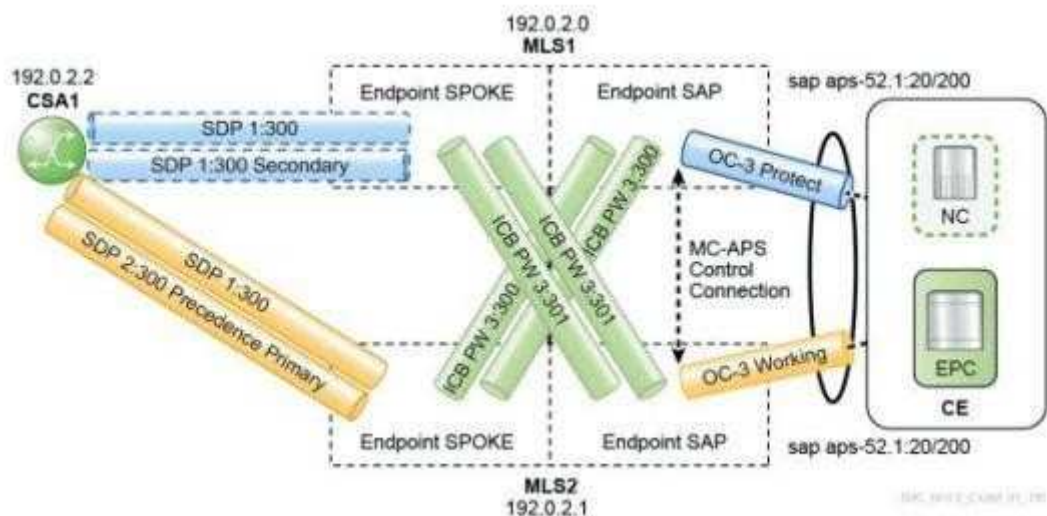D. sap 1/1/6.1:200/20

**Correct Answer:** D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 49
Click on the exhibit

Given the diagram shown, and the following information:

· Configured on CSA1 and the two MLS routers is redundant aPipe 300 · Interchassis Backup Pseudowires (ICB-PW) provide a path of last resort to the Customer Edge (CE) Service Access Points (SAPs) · Multichassis Automatic Protection Switching (MC-APS) protects the CE access ports · Assume normal status on all aPipe 300 spoke Service Distribution Points (SDPs)

If the working OC-3 fails, which three statements correctly describe the resulting status of the MLS1 aPipe 300 endpoint objects (Choose three)

A. Spoke SDP 1:300 active
B. Spoke SDP 1:300 standby
C. Spoke SDP 3:300 active
D. Spoke SDP 3:300 standby
E. Spoke SDP 3:301 active
F. Spoke SDP 3:301 standby

Correct Answer: ADF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 50
Click on the exhibit
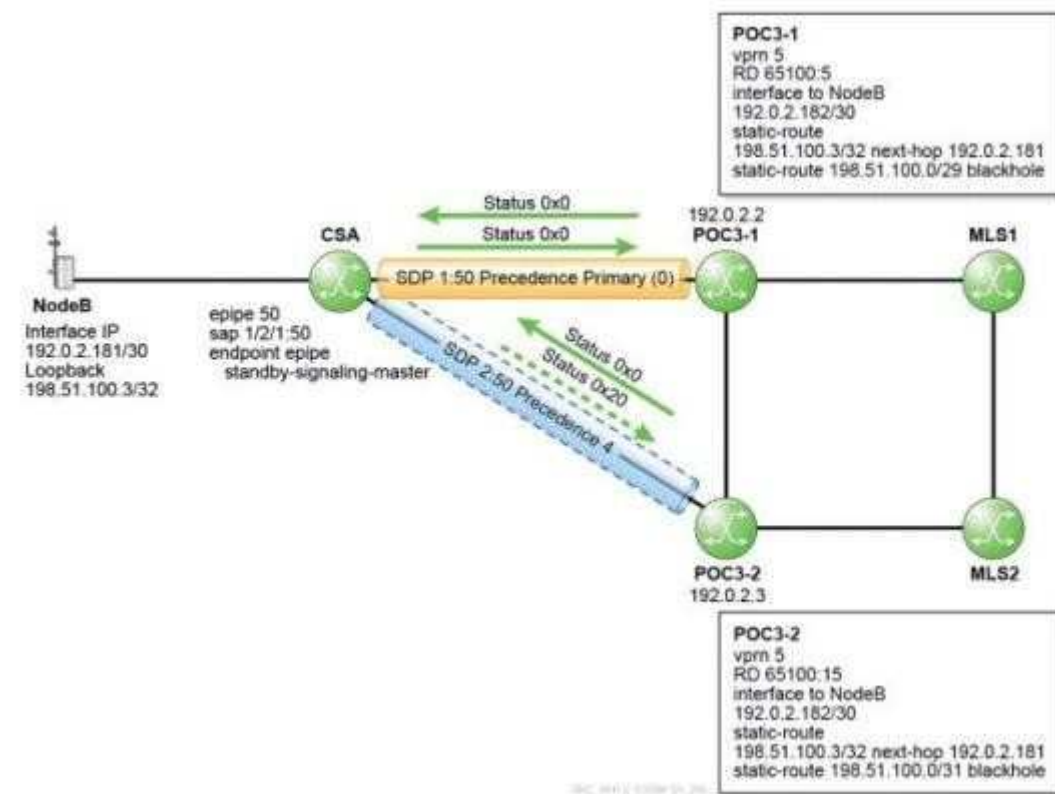
Given the diagram and the following information:

· Virtual Private Routed Network (VPRN) 5 spans the routers Point of Concentration (POC) 3-1 and 3-2 and the Multilevel Switch (MLS) routers MLS1 and MLS2 · Multiprotocol Border Gateway Protocol (MP-BGP) is configured and operational · Pseudowire status is signaled, as shown, on the ePipe/VPRN spoke Service Distribution Paths (SDPs)

Which statement correctly describes the illustrated services' normal operations?

A. A failure on the POC3-1 VPRN interface 'to NodeB" will cause a pseudowire switch on the CSA router
B. A failure on the POC3-2 VPRN interface 'to NodeB" will cause a pseudowire switch on the CSA router
C. The CSA router sends traffic down both spoke SDPs 1:50 and 2:50 simultaneously
D. Both POC3-1 and POC3-2 VPRN interfaces "to NodeB" simultaneously forward traffic to the CSA router

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 51
Click on the exhibit

```
A:CSA1>config>port# info
---------------------------------------------------
          multilink-bundle
               ima
                    atm
                    exit
                    test-pattern-procedure
                    exit
               exit
               member 1/1/1.1
               member 1/1/2.1
               member 1/1/3.1
          exit
          no shutdown
```

Given the configuration shown:
Which statement correctly describes the port configuration shown?

A. The bundle will become operational once it is associated with a Layer 3 interface
B. The bundle may be used for aPipe cell mode N:1 or N=1 service access points (SAPs)
C. The bundle can be protected via Multichassis Automatic Protection Switching (MC-APS)
D. The bundle members are configured on a SONET/SDH Optical Carrier (OC)-3 port
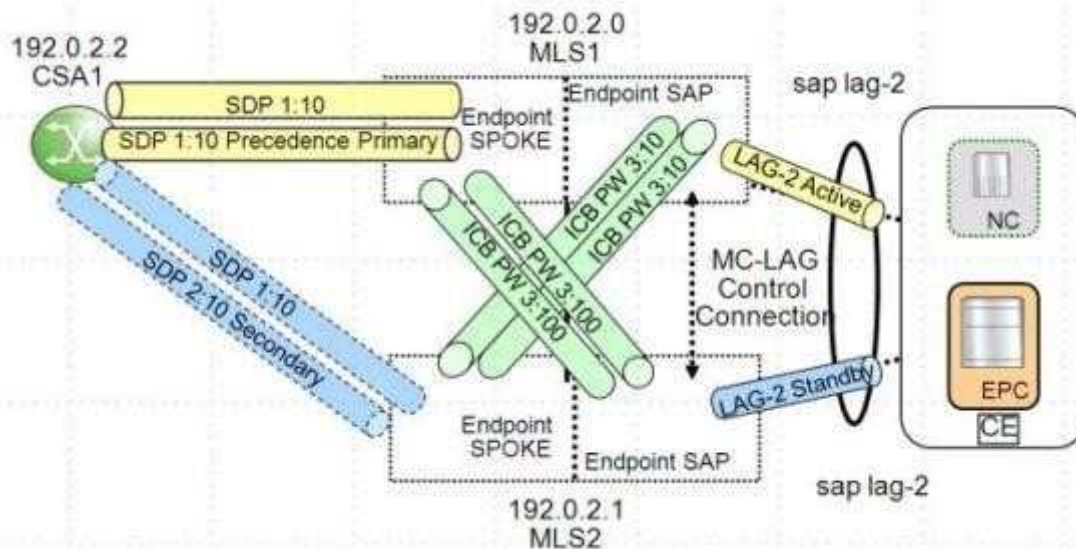
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 52
Click on the exhibit

Given the diagram shown, and the following information:

· Configured on CSA1 and the two MLS routers is redundant ePipe 10 · Interchassis Backup Pseudowires (ICB-PW) provide a path of last resort to the Customer Edge (CE) Service Access Points (SAPs)
· A Multichassis Link Aggregation Group (MC-LAG) protects the CE access ports · Assume normal status on all ePipe 10 spoke Service Distribution Points (SDPs)

If the CSA1 primary spoke SDP fails, which three statements correctly describe the resulting status of the MLS2 ePipe 10 endpoint objects? (Choose three)

A. SAP LAG-2 active
B. SAP LAG-2 standby
C. Spoke SDP 3:10 active
D. Spoke SDP 3:10 standby
E. Spoke SDP 3:100 active
F. Spoke SDP 3:100 standby

Correct Answer: BDE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 53
Click on the exhibit


```
A:NodeA>config>port>tdm# info
----------------------------------------------------
    ds1
            channel-group 1
                shutdown
            exit
            no shutdown
        exit
```

Given the configuration example shown:

The DS1 port shown will become a Structure Agnostic TDM over Packet (SAToP) Service Access Point (SAP) access port.

What must be configured on the DS1 port to allow it to carry all 24 TDM timeslots as a stream of consecutive octets?

A. Set encap-cem in the channel group
B. Set encap-type satop-t1 on the port
C. Setframingds1-unframedontheport
D. Setthe channel-group timeslots to 1-24

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 54
Click on the exhibit

```
A:NodeA>config>port>tdm# info
----------------------------------------------------
            e1
                    framing e1-unframed
                    channel-group 1
                        encap-type cem
                        no shutdown
                    exit
                    no shutdown
            exit
```

Given the configuration shown and the following information:

- The port configured as shown is used in a cPipe service Service Access Point (SAP) 1/2/1.1
- Each packet contains a 256 byte payload.

Based on the number of timeslots in each frame, what jitter buffer size, in milliseconds (ms), does the router set for this SAP?

A. 5 ms
B. 8 ms
C. 16 ms
D. 32 ms

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 55
Click on the exhibit

```
A:CSA1# show router ldp bindings detail
...output truncated
================================================================

----------------------------------------------------------------
Type            : E-Eth          VcId            : 1
SvcId           : 1              SdpId           : 1
Peer Address    : 192.0.2.0      Vc-switching    : No
LMTU            : 1500           RMTU            : 1500
Egr. Lbl        : 131059S        Egr. Ctl Word   : No
Egr. Flags      : None           Egr. Status Bits : Supported (0x0)
Ing. Lbl        : 131070U        Ing. Ctl Word   : No
Ing. Flags      : None           Ing. Status Bits : Supported (0x0)
----------------------------------------------------------------
Type            : E-Eth          VcId            : 1
SvcId           : 1              SdpId           : 2
Peer Address    : 192.0.2.1      Vc-switching    : No
LMTU            : 1500           RMTU            : 1500
Egr. Lbl        : 131058D        Egr. Ctl Word   : No
Egr. Flags      : None           Egr. Status Bits : Supported (0x26)
Ing. Lbl        : 131068U        Ing. Ctl Word   : No
Ing. Flags      : None           Ing. Status Bits : Supported (0x0)
...output truncated
```

Given the show results shown, and the following information:

· CSA1 originates a redundant ePipe service
· The remote PE Service Access Points (SAPs) are Multichassis-Link Aggregation Group (MC- LAG) members

What would cause the spoke SDP status 0x26?

A. Peer 192.0.2.1'sePipe SAP is in standby
B. The local node has deleted its label for spoke SDP 2:1
C. Peer 192.0.2.1'sePipe SAP port is operationally down
D. SpokeSDP 1:1 is the active redundant pseudowire

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 56
Which statement correctly describes bi-directional Automatic Protection Switching (APS) as implemented in SROS?

A. The endpoints transmit the same data on the working and protect circuits
B. The endpoints send K2 keepalive bits on the working and protect circuits
C. A failure on the receive path causes both paths to switch to the protect circuit
D. Either the working or protection circuit can signal an APS switch
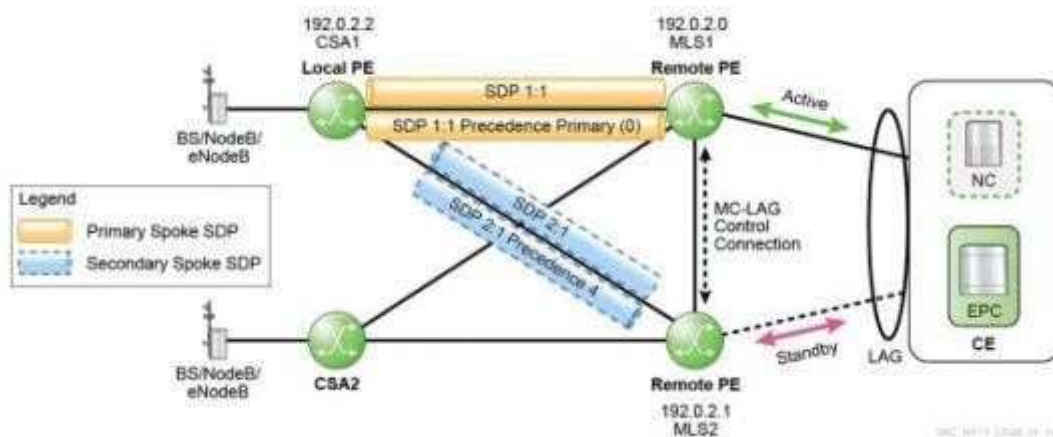
Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 57
Click on the exhibit

Given the diagram shown, and the following information:

· Configured on CSA1 is a redundant ePipe service
· A Multichassis-Link Aggregation Group (MC-LAG) protects the CE access links · The preferred spoke SDP has failed

After the failure, which status will the MLS2 router signal to CSA 1 on its return spoke SDP 2:1?

A. Pseudowire forwarding, 0x00
B. Remote pseudowire active, remote SAP is down, 0x06
C. Pseudowire forwarding standby,0x20
D. Remote pseudowirein standby, remote SAP is down,0x26
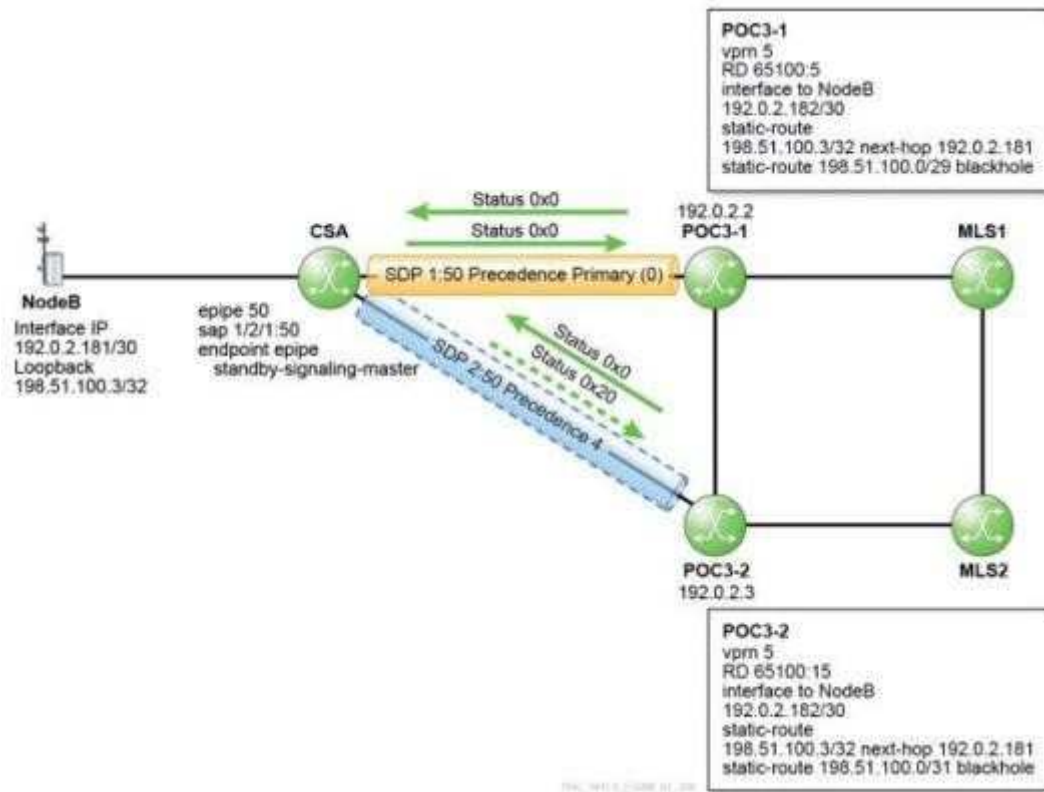
Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 58
Click on the exhibit

POC3-1
vprn 5
RD 65100:5
interface to NodeB
192.0.2.182/30
static-route
198.51.100.3/32 next-hop 192.0.2.181
static-route 198.51.100.0/29 blackhole

POC3-2
vprn 5
RD 65100:15
interface to NodeB
192.0.2.182/30
static-route
198.51.100.3/32 next-hop 192.0.2.181
static-route 198.51.100.0/31 blackhole

Given the diagram and the following information:

· Virtual Private Routed Network (VPRN) 5 spans the routers Point of Concentration (POC) 3-1 and 3-2 and the Multilevel Switch (MLS) routers MLS1 and MLS2 · Multiprotocol Border Gateway Protocol (MP-BGP) is configured and operational · Pseudowire status is signaled, as shown, on the ePipe/VPRN spoke Service Distribution Points (SDPs)

In the exhibit, how does the signaled pseudowire status affect the VPRN 5 service?

A. The spoke SDP 1:50 status 0x00 keeps the POC3-1 VPRN interface "to NodeB" operationally down
B. The spoke SDP 2:50 status 0x20 holds down the POC3-2 static routes until SDP 2 recovers
C. MLS1 and MLS2 route traffic targeting the NodeB loopback interface through router POC3-1
D. MLS1 and MLS2 route traffic targeting the NodeB loopback interface through router POC3-2

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 59
Click on the exhibit

```
A:CSA2# show service id 300 base

==================================================================
Service Basic Information
==================================================================
Service Id        : 300
Service Type      : Cpipe            VLL Type          : SAToPT1
Description       : 2G_BTS03
Customer Id       : 1
Last Status Change: 12/05/2011 09:12:05
Last Mgmt Change  : 12/05/2011 09:11:06
Admin State       : Up               Oper State        : Up
MTU               : 1514
Vc Switching      : False
SAP Count         : 1               SDP Bind Count    : 2


------------------------------------------------------------------
Service Access & Destination Points
------------------------------------------------------------------
Identifier                         Type    AdmMTU  OprMTU  Adm  Opr
------------------------------------------------------------------
sap:1/1/7.1                        cem     1514    1514    Up   Up
sdp:1:300 S(192.0.2.0)             n/a     0       1550    Up   Up
sdp:2:300 S(192.0.2.1)             n/a     0       1550    Up   Up
==================================================================
```

Given the show command and the result shown:
Which payload type does this service transport?

A. A channelized E1 circuit carrying all 32 timeslots
B. An unframedDSI circuit carrying all 24 timeslots
C. Multilink Protocol (MP) framed bundled E1s
D. Ethernet over TDM framed DS1 circuits

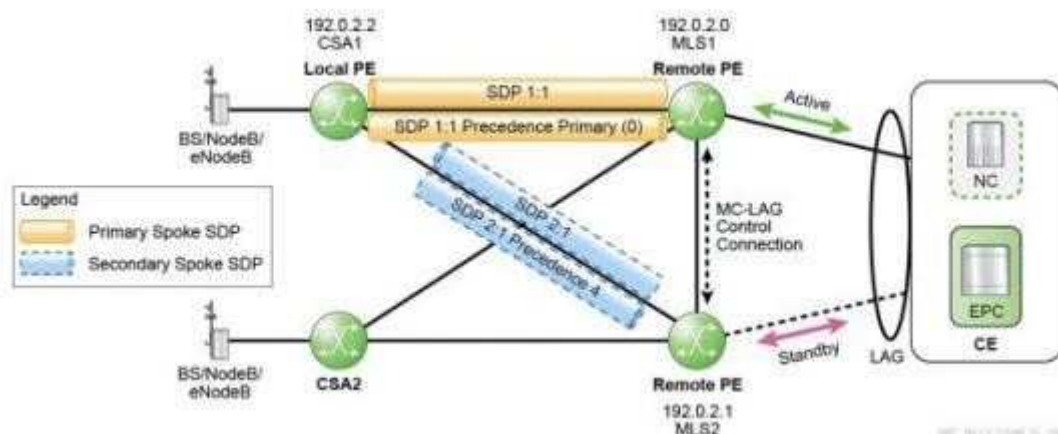**Correct Answer:** B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 60
Click on the exhibit

Given the diagram shown, and the following information:

· Configured on CSA1 is a redundant ePipe service
· A Multichassis-Link Aggregation Group (MC-LAG) protects the CE access links ·The active MC-LAG has switched to MLS2

Which status does MLS1 signal to CSA1 on its return spoke SDP 1:1?

A. Pseudowire forwarding, 0x00
B. Remote pseudowire active, remote SAP is down, 0x06
C. Pseudowire forwarding standby,0x20
D. Remote pseudowirein standby, remote SAP is down,0x26

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 61
Which statement correctly describes an MSP Aggregation Gateway (MG) function?

A. It aggregates and terminates base station traffic for multiple mobile operators
B. It resides in the MTSO and terminatesBTP transport interfaces at theUNI-MG
C. It aggregates and delivers cell site traffic to the mobile operator's control elements
D. It terminates the backhaul transport provider's SONET or TDM transport interfaces

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 62
Which statement correctly describes a Point-to-Point (PPP) Multilink Protocol (MP) frame characteristic?

A. The MP frame header carries the Layer 3 payload fragment offset value
B. The CLS field identifies the frame's Differentiated Services Code Point (DSCP) value
C. Only the first fragment in a sequence carries the Layer 3 payload header
D. The frame's B and E bits indicate payload discard eligibility

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 63
Which statement correctly describes Alcatel-Lucent SROS Multilink-Point-to-Point Protocol (ML-PPP) operation?

A. SROS only supports ML-PPP bundles configured as access interfaces
B. SROS bundle peers indicate their desire to implement Multilink Protocol (MP) with the frame header MP flag set
C. SROS ML-PPP binds each data stream to a single bundle member link
D. SROS ML-PPP bundles can support sub-rate channel groups as bundle members

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 64
Which statement correctly describes TDM port configuration for use with Inverse Multiplexing over ATM (IMA) bundles?

A. The member circuits must be loop timed
B. ATM encapsulation uses all available timeslots
C. The port mode must be changed to access
D. The ports must be channelized DS1s

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 65
Click on the exhibit.
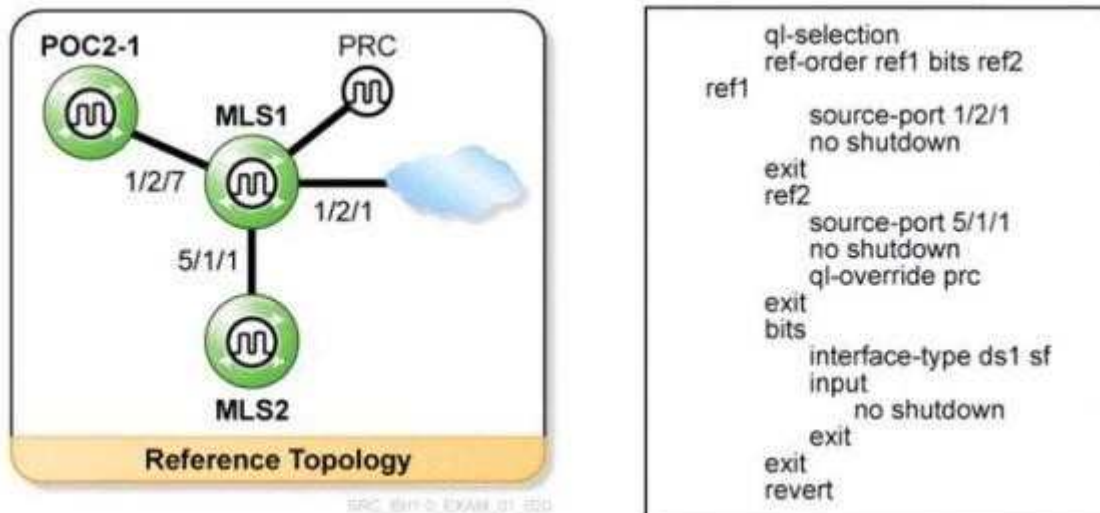
Consider the topology and MLS1 configuration shown, and given the following conditions:

· MLS1 delivers the PRC traceable clock to the network · Reference 1 receives Quality Level (QL)- EEC-1
· Reference 2 receives QL - DNU
·BITS is operational

What quality level will MLS1 deliver to POC2-1 on its Synchronous Ethernet (SyncE) port 1/2/7?

A. QL-DNU
B. QL-EEC1
C. QL-PRC
D. GL-SSU-A

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 66
Once an IEEE 1588v2/Precision Time Protocol (PTP) v2 clock is configured and turned up, to which state do the ports transit on first in order to wait for announcements from the Master?

A. Initial
B. Listening
C. Slave
D. Un-calibrated

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 67
A Synchronization Ethernet (SyncE)/Synchronization Status Message (SSM)-capable node is configured to support the ITU-T G.781 SONET mode. Which SSM code indicates that the node has gone into holdover?

A. QL-DUS
B. QL-EEC2
C. QL-STU
D. QL-PRS

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 68
Which IEEE 1588v2 two-step clock message allows the slave to calculate a more accurate master-slave offset value than is possible with a one-step clock?

A. Announce
B. Delay_Resp
C. Follow_Up
D. Sync

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 69
Click on the exhibit.

```
-------------------------------------------------------
                ql-selection
                ref-order external ref1 ref2
                ref1
                        source-port 1/1/1
                        no shutdown
                exit
                ref2
                        source-port 1/2/7
                        no shutdown
                        ql-override prs
                exit
                external
                        input-interface
                                shutdown
                                impedance high-impedance
                        exit
                exit
-------------------------------------------------------
```

Considering the configuration shown, and given the following conditions:
* The 7705 Service Access Router (SAR) is a Precision Time Protocol (PTP) v2 master on domain 1
* It is configured for the ITU-T G.8265.1 profile
* ref1 is an Extended Superframe (ESF) DS1 and is qualified
* The DS1 source indicates in its SSM messages that it is synchronized to a Stratum 3 clock
* ref2 is a Synchronous Ethernet (SyncE) port and traces its source to a Stratum 1 reference

Which Quality Level will the 7705 SAR master announce to its slave routers?

A. QL-DUS
B. QL-EEC2
C. QL-STU
D. QL-PRS

Correct Answer: D
Section: (none)
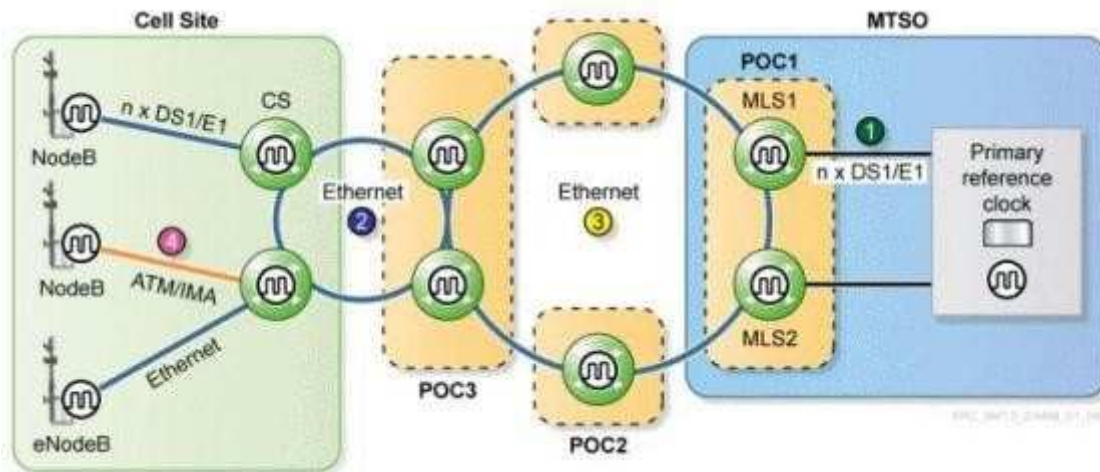**Explanation**

Explanation/Reference:
Explanation:

QUESTION 70
Click on the exhibit.

Given the topology shown:
The nodes on ring 3 are Ethernet connected via Point-to-Point links. No external timing sources are available. Which two timing techniques can be used to delivery frequency timing over these Ethernet links? (Choose two.)

A. IEEE 1588v2/Precision Time Protocol (PTP)
B. Time Division Multiplexing (TDM) line timing
C. Synchronous Ethernet (SyncE)
D. Global Positioning System (GPS)
E. Adaptive Clock Recovery (ACR)

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 71
In IEEE 1588v2 two-way synchronization operating mode, which Precision Time Protocol (PTP) message does the slave send to request that the master take and send a second timestamp?

A. Delay_Req
B. Delay_Resp
C. Sync_Req
D. Follow_Up

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 72
Click on the exhibit.

```
--------------------------------------------------
                    ql-selection
                    ref-order external ref1 ref2
                    ref1
                        source-port 1/1/1
                        no shutdown
                    exit
                    ref2
                        source-port 1/2/7
                        no shutdown
                        ql-override prs
                    exit
                    external
                        input-interface
                            shutdown
                            impedance high-impedance
                        exit
                    exit
--------------------------------------------------
```

Given the configuration shown, and the following conditions:

· The 7705 Service Access Router (SAR) is a PTP master on domain 1 · It is configured for the ITU-T G.8265.1 profile
· ref1 is an Extended Superframe (ESF) DS1 and is qualified · The DS1 source indicates in its SSM messages that it is synchronized to a Stratum 1 clock · ref2 is a SyncE port and is qualified

Which Quality Level will the 7705 SAR master announce to its slave routers?

A. QL-DUS
B. QL-EEC2
C. QL-STU
D. QL-PRS

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 73
A Synchronization Ethernet (SyncE)/Synchronization Status Message (SSM)-capable node is configured to support the ITU-T G.781 SDH mode. Which SSM code indicates that the node has gone into holdover?

A. GL-DNU
B. QL-EEC1
C. QL-SSU-A
D. QL-PRC

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Explanation:

QUESTION 74
Click on the exhibit.

```
A:POC3-1# show router mpls bypass-tunnel protected-lsp
===============================================================================
MPLS Bypass Tunnels
===============================================================================
Legend :  m - Manual      d - Dynamic       p - P2mp
===============================================================================
To                 State  Out I/F     Out Label    Reserved    Protected  Type
                                                    BW (Kbps)   LSP Count
-------------------------------------------------------------------------------
192.0.2.3          Up     1/2/7       131071       0           0          m
  Protected LSPs -
  No protected LSPs
-------------------------------------------------------------------------------
Bypass Tunnels : 1
===============================================================================
```

```
           path "bypass_POC3-2"
               hop 1 192.0.2.0 strict
               no shutdown
           exit
           path "loose"
               no shutdown
           exit
           lsp "bypass_POC3-2" bypass-only
               to 192.0.2.3
               primary "bypass_POC3-2"
               exit
               no shutdown
           exit
           lsp "POC3-1_POC3-2"
               to 192.0.2.3
               cspf
               fast-reroute one-to-one
               exit
               primary "loose"
                   include "LOWER"
               exit
               no shutdown
           exit
```

Given the show command results and the configuration shown:
Why did the head end router fail to protect the Label Switch Path (LSP) between POC3-1 and POC3-2 with the configured manual bypass tunnel?

A. The protected LSP must specify manual bypass required
B. The bypass tunnel path must explicitly specify each hop to the tail end
C. The manual bypass LSP must terminate on the bypass path last hop entry
D. The protected LSP must specify fast reroute facility

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 75
Click on the exhibit.

```
A:POC3-1# show router mpls bypass-tunnel protected-lsp
=====================================================================
MPLS Bypass Tunnels
=====================================================================
Legend :  m - Manual     d - Dynamic      p - P2mp
=====================================================================
To               State  Out I/F      Out Label     Reserved   Protected  Type
                                                    BW (Kbps)  LSP Count

---------------------------------------------------------------------
192.0.2.23       Up     1/2/7        131070        0          1          d
   Protected LSPs -
   POC3-1_POC3-2::loose               From: 192.0.2.2     To: 192.0.2.3
---------------------------------------------------------------------
Bypass Tunnels : 1
---------------------------------------------------------------------
```

```
        path "bypass_POC3-2"
            hop 1 192.0.2.3 strict
            no shutdown
        exit
        path "loose"
            no shutdown
        exit
        lsp "bypass_POC3-2" bypass-only
            to 192.0.2.3
            primary "bypass_POC3-2"
            exit
            no shutdown
        exit
        lsp "POC3-1_POC3-2"
            to 192.0.2.3
            cspf
            fast-reroute facility
            exit
            primary "loose"
                include "LOWER"
            exit
            no shutdown
        exit
```

Given the show command results and the configuration shown:
Why did the head end router choose to protect the Label Switch Patti (LSP) with a dynamic bypass tunnel instead of the manual bypass tunnel as configured?

A. Manual bypass tunnels must be configured for fast reroute facility and cspf
B. The bypass tunnel path's first hop must avoid the protected LSP tail end
C. The protected LSP needs a strict hop path to the tail end router
D. The routers choose dynamic bypass tunnels over manual bypass tunnels by default

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 76
Which statement correctly describes how the Versatile Services Module (VSM) cross-connects Layer 2 and Layer 3 services?

A. A VSM cross connect bypasses the switch fabric and directly connects the service access ports
B. Each Cross Connect Aggregation Group (CCAG) requires a dedicated VSM
C. Optional Q-in-Q encapsulation increases the number of cross connects per CCAG
D. A Cross Connect Identifier (CCID) allows multiple cross connects on a single CCAG

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 77
Click on the exhibit.

```
A:MLS1>config>service# info
----------------------------------------------------
vprn 2 customer 1 create
     description "3G Voice VPRN"
     router-id 198.51.100.0
     route-distinguisher 65100:2
     interface "ipipe200" create
          description "MLPPP_BTS02_URC01"
          address 198.51.100.25/30
          sap 1/1/9:200 create
          exit
     exit
ipipe 200 customer 1 create
     sap 1/1/8:200 create
          ce-address 198.51.100.25
          mac 00:00:00:02:00:01
     exit
     spoke-sdp 1:200 create
          ce-address 198.51.100.26
          no shutdown
     exit
     no shutdown
exit
```

Given the configuration shown and the following information:

· The Virtual Private Routed Network (VPRN) service 2 interface "ipipe200" cross-connects the VPRN with the IP Interworking Pipe (iPipe) service 200 SAP 1/1/8:200. · The iPipe spoke-SDP 1:200 transports traffic to and from the Cell Site Aggregator (CSA) router
· The CSA hosts the far-end iPipe service on which a Multilink Point-to-Point (MLPPP) CE device SAP is configured

What can you add to the VPRN 2 interface "ipipe200" configuration to ensure that the VPRN service always knows the correct destination Media Access Control (MAC) address for the far- end CE device with the IP address 192.51.100.26?

A. A static MAC address entry on the VPRN 2 interface "ipipe200" mapping the CE device MAC address to its assigned IP address
B. A static Address Resolution Protocol (ARP) entry to the iPipe 200 spoke-sdp 1:200 mapping the CE device MAC address to its assigned IP address
C. A static ARP entry on the iPipe 200 sap 1/1/8:200 mapping the CE device MAC address to its assigned IP address
D. A static ARP entry on the VPRN 2 interface "ipipe 200" mapping the CE device MAC address to its assigned IP address

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 78
Click on the exhibit.

```
A:CSA2# show router ldp bindings service-id 300 detail

============================================================
LDP LSR ID: 192.0.2.3
============================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        TLV - (Type, Length: Value)
============================================================
LDP Service Binding
============================================================
------------------------------------------------------------
Type             : E-Eth             VcId            : 300
SvcId            : 300               SdpId           : 1
Peer Address     : 192.0.2.0         Vc-switching    : No
LMTU             : 1500              RMTU            : 1500
Egr. Lbl         : 1310568           Egr. Ctl Word   : No
Egr. Flags       : None              Egr. Status Bits : Supported (0x0)
Ing. Lbl         : 131061U           Ing. Ctl Word   : No
Ing. Flags       : None              Ing. Status Bits : Supported (0x0)
------------------------------------------------------------
Type             : E-Eth             VcId            : 300
SvcId            : 300               SdpId           : 2
Peer Address     : 192.0.2.1         Vc-switching    : No
LMTU             : 1500              RMTU            : 1500
Egr. Lbl         : 1310585           Egr. Ctl Word   : No
Egr. Flags       : None              Egr. Status Bits : Supported (0x0)
Ing. Lbl         : 131060U           Ing. Ctl Word   : No
Ing. Flags       : None              Ing. Status Bits : Supported (0x20)
------------------------------------------------------------
============================================================
No. of VC Labels: 2
============================================================
```

Given the show command results shown and the following information:

· The local Provider Edge (PE) router ePipe 300 service uses redundant pseudowires spoke- terminated into Internet Enhanced Service (IES) interfaces on two separate remote PE routers. What would cause the Targeted LDP (T-LDP) status 0x20 on the spoke Service Distribution Point (SDP) highlighted?

A. standby-signaling-master is enabled on the ePipe 300 endpoint
B. The IES service into which spoke SDP 2:300 terminates is operationally down
C. The local PE SDP 2 is operationally down
D. standby-signaling-master is enabled on spoke SDP 2:300

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 79
Which statement correctly describes Virtual Routing and Redundancy Protocol (VRRP) operation?

A. The current master interface originates frames using its physical interface's Media Access Control (MAC) address as the source
B. A non-owner mode Virtual Router ID (VRID) can have a master and only one backup interface
C. The master interface sends its physical MAC address in response to virtual interface IP address Address Resolution Protocol (ARP) requests
D. A higher numeric priority value increases the time a virtual interface waits to attempt to become master

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 80
Click on the exhibit.

```
A:CSA1# show router ldp bindings detail

========================================================================
LDP LSR ID: 192.0.2.2
========================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
...output truncated
========================================================================
...output truncated
========================================================================
LDP Service FEC 128 Bindings
========================================================================
------------------------------------------------------------------------
Type                : E-Eth              VcId              : 1
SvcId               : 1                  SdpId             : 1
Peer Address        : 192.0.2.0          Vc-switching      : No
LMTU                : 1500               RMTU              : 1500
Egr. Lbl            : 1310715            Egr. Ctl Word     : No
Egr. Flags          : None               Egr. Status Bits  : Supported (0x0)
Ing. Lbl            : 131069U            Ing. Ctl Word     : No
Ing. Flags          : None               Ing. Status Bits  : Supported (0x0)
------------------------------------------------------------------------
Type                : E-Eth              VcId              : 1
SvcId               : 1                  SdpId             : 2
Peer Address        : 192.0.2.1          Vc-switching      : No
LMTU                : 1500               RMTU              : 1500
Egr. Lbl            : 131059S            Egr. Ctl Word     : No
Egr. Flags          : None               Egr. Status Bits  : Supported (0x0)
Ing. Lbl            : 131068U            Ing. Ctl Word     : No
Ing. Flags          : None               Ing. Status Bits  : Supported (0x20)
------------------------------------------------------------------------
========================================================================
No. of VC Labels: 2
...output truncated
```

Given the local Provider Edge (PE) router show command result shown:
The local PE originates the redundant ePipe 1 that terminates on each of two remote PE routers. Both pseudowires have the same precedence value. What does the spoke SDP 2:1 ingress status "0x20" indicate?
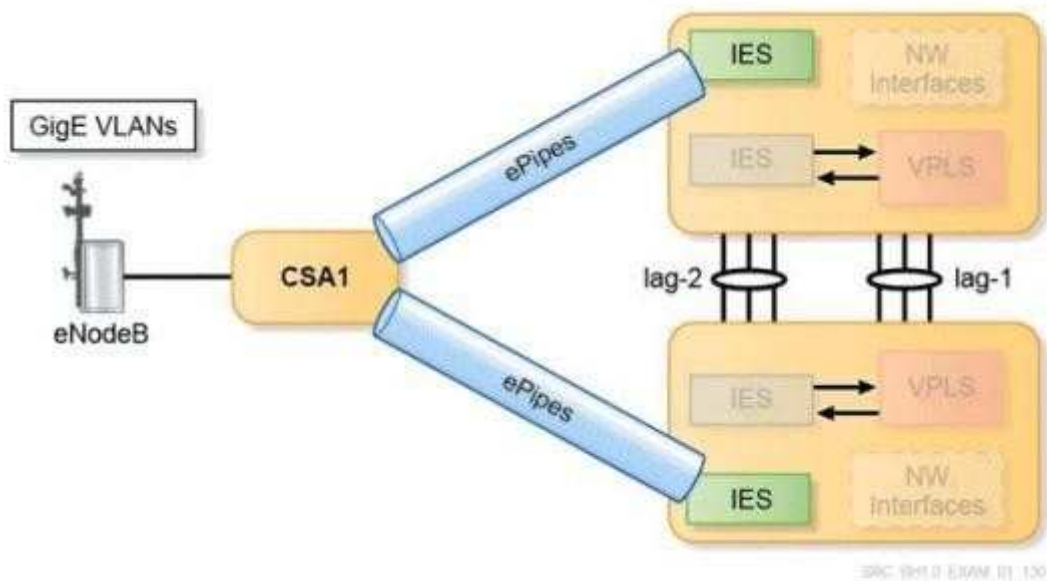
A. The remote PE SAP is operationally down
B. The local PE router indicates its local SAP is operationally down
C. The local PE router indicates the pseudowire is in standby
D. The remote PE router indicates the pseudowire is in standby

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 81
Click on the exhibit.

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Given the diagram shown and the following information:

· CSA1 originates a redundant ePipe service
· The ePipe spoke Service Distribution Points (SDPs) terminate on Internet Enhanced Services (ES) configured on each of the two remote PEs.
· The ePipe service Maximum Transmission Unit (MTU) is set to 1518

How must you configure the IES MTUs to ensure that the spoke SDPs become operational on all bound services?

A. configure the IES service MTU to 1500 bytes
B. configure the IES interface IP-MTUs to 1504 bytes
C. configure the IES spoke SDP path MTUs to 1518 bytes
D. configure the remote PE SDP path MTUs to 1518 bytes

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 82
Click on the exhibit.

```
epipe 1 customer 1 create
            description "3G_BTS01"
            endpoint "epipe1" create
                revert-time 1
            exit
            sap 1/2/1:1 create
            exit
            spoke-sdp 1:1 endpoint "epipe1" create
            exit
            spoke-sdp 2:1 endpoint "epipe1" create
            exit
            no shutdown
        exit
```

Given the local Provider Edge (PE) router configuration shown:
Assuming equal status on both spoke Service Distribution Points (SDPs), how does the local PE router choose the active SDP?

A. It chooses the first operational spoke SDP
B. Itforwards traffic over both spoke SDPs simultaneously
C. It chooses the spoke SDP with the lowest numeric SDP ID
D. It chooses the spoke SDP with the lowest numeric VC ID

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 83
Which SAP port and identifier format is correct for use in a cPipe service configured for Structure Agnostic over Packet (SAToP) operation?

A. 1/1/3.1
B. 1/2/1:100/200
C. bundte-ppp-1.1/100
D. 2/1/4:300

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 84
Click on the exhibit.

```
epipe 1 customer 1 create
            description "3G_BTS01"
            endpoint "epipe1" create
                revert-time 1
                standby-signaling-master
            exit
            sap 1/2/1:1 create
            exit
            spoke-sdp 1:1 endpoint "epipe1" create
                precedence 2
            exit
            spoke-sdp 2:1 endpoint "epipe1" create
            exit
            no shutdown
```

Given the local Provider Edge (PE) router configuration shown and the following condition:
· All Service Access Points (SAPs) and spoke Service Distribution Points (SDPs) are operational

Which pseudowire status will the local PE router signal for the standby spoke SDP?

A. 0x00,Pseudowire forwarding
B. 0x01,Pseudowire not forwarding
C. 0x20, Pseudowire forwarding Standby
D. 0x21, Pseudowire in standby and not forwarding

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 85
Click on the exhibit.

```
A:NodeA# configure service cpipe 400 customer 1 create

*A:NodeA>config>service>cpipe$ spoke-sdp 2:400 create

*A:NodeA>config>service>cpipe>spoke-sdp$ back

*A:NodeA>config>service>cpipe$ spoke-sdp 3:400 create

MINOR: SVCMGR #1954 The service cannot support any more SDP bindings

*A:NodeA>config>service>cpipe$
```

Given the error message shown
While configuring cPipe 400 on the Switching Provider Edge (S-PE) router, you see the error message shown. What must you do to correct this error?

A. Delete the service and recreate it using thevc-switching keyword
B. Delete the spoke-SDP and place it in an explicit endpoint
C. Delete the spoke-SDP and configure it as type vc-switching when you recreate it
D. Delete the service and recreate it with Interchassis Backup Pseudowires (ICB-PW)

QUESTION 86
Click on the exhibit.
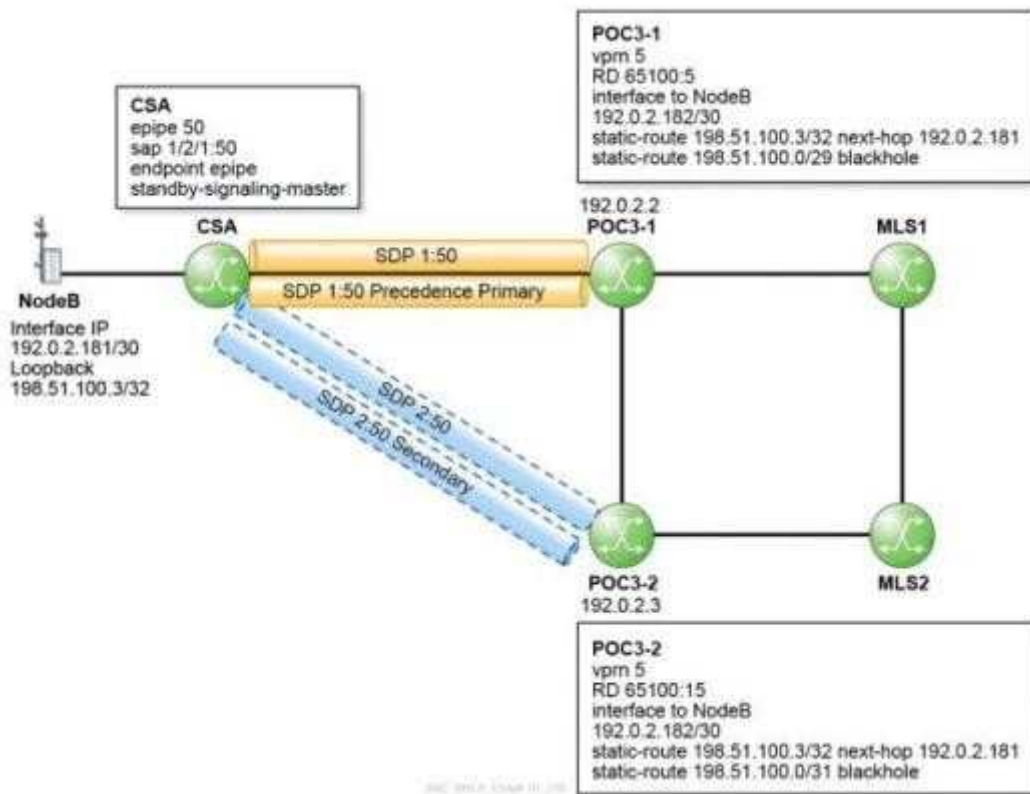
Given the diagram and the following information:

· Virtual Private Routed Network (VPRN) 5 spans the routers Point of Concentration (POC) 3-1 and 3-2 and the Multilevel Switch (MLS) routers MLS1 and MLS2 · Multiprotocol Border Gateway Protocol (MP-BGP) is configured and operational · Pseudowire status is signaled, as shown, on the ePipe/VPRN spoke Service Distribution Points (SDPs)
· Spoke SDP 1:50 has failed and recovered

What command verifies that the two CSA router pseudowires are operational?

A. show service id 50 active
B. show service id 50 endpoint
C. show service id 50 revert-time
D. show service id 50 sdp

QUESTION 87
Click on the exhibit.

```
A:CSA1>config>service>epipe# show service id 250 base

========================================================================
Service Basic Information
========================================================================
Service Id          : 250
Service Type        : Epipe
Description         : (Not Specified)
Customer Id         : 1
Last Status Change: 12/01/2011 10:15:10
Last Mgmt Change  : 12/01/2011 10:41:21
Admin State         : Up                Oper State       : Up
MTU                 : 1514
Vc Switching        : False
SAP Count           : 1                 SDP Bind Count   : 3


------------------------------------------------------------------------
Service Access & Destination Points
------------------------------------------------------------------------
Identifier                            Type      AdmMTU  OprMTU  Adm  Opr
------------------------------------------------------------------------
sap:1/2/1:250                         q-tag     1518    1518    Up   Up
sdp:2:250 S(192.0.2.1)                n/a       0       1550    Up   Up
sdp:3:250 S(192.0.2.3)                n/a       0       1550    Up   Up
sdp:4:250 S(192.0.2.4)                n/a       0       1550    Up   Up
========================================================================
*A:CSA1>config>service>epipe# spoke-sdp 1:150 create
MINOR: SVCMGR #1954 The service cannot support any more SDP bindings
```

Given the command example shown, and the following information:

* CSA1 originates a switched ePipe service
* Each spoke SDP transports traffic to an S-PE
* Each spoke SDP uses the default spoke precedence value

Which would cause the error message shown when you try to create another spoke SDP binding?

A. A service can have a total of four endpoint objects across all endpoints
B. The spoke SDP cannot be added since it would preempt the active spoke SDP
C. The spoke binding must include the endpoint name as part of its configuration
D. The new spoke SDP Virtual Circuit (VC)-ID must match the service ID

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 88
Which SROS aPipe feature transports the entire cell payload and header for a single ATM Virtual Channel (VC)?

A. N+1 cell mode
B. vc-type atm-vcc
C. vc-type atm-vpc
D. ATM Adaptation Layer (AAL) 5 Service Distribution Unit (SDU) frame mode

Correct Answer: B
Section: (none)
Explanation

QUESTION 89
Click on the exhibit

```
A:NodeA>config>service>apipe# info
-------------------------------------------------------
        description "3G_BTS02"
        spoke-sdp 1:200 create
            no shutdown
        exit
        spoke-sdp 3:200 create
            no shutdown
        exit
        no shutdown
```

Given the configuration shown:
Which statement correctly describes the aPipe service configuration shown?

A. Spoke SDP 1:200 is the active pseudowire in normal operations
B. The service uses the explicit endpoint name "3G_BTS02"
C. The service needs a SAP to operate
D. The service switches service traffic between spoke SDPs

Correct Answer: D
Section: (none)
Explanation

QUESTION 90
Click on the exhibit.

```
A:CSA1>config>port>tdm# info
-------------------------------------------------------
            ds1
                channel-group 1
                    encap-type atm
                    no shutdown
                exit
                no shutdown
            exit
```

Given the configuration shown:
Which statement correctly describes the port configuration shown?

A. All 32 timeslots belong to the channel group
B. The port is configured for loop timing
C. The port can host more than one channel group
D. The channel group is configured for access mode

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 91
Click on the exhibit.
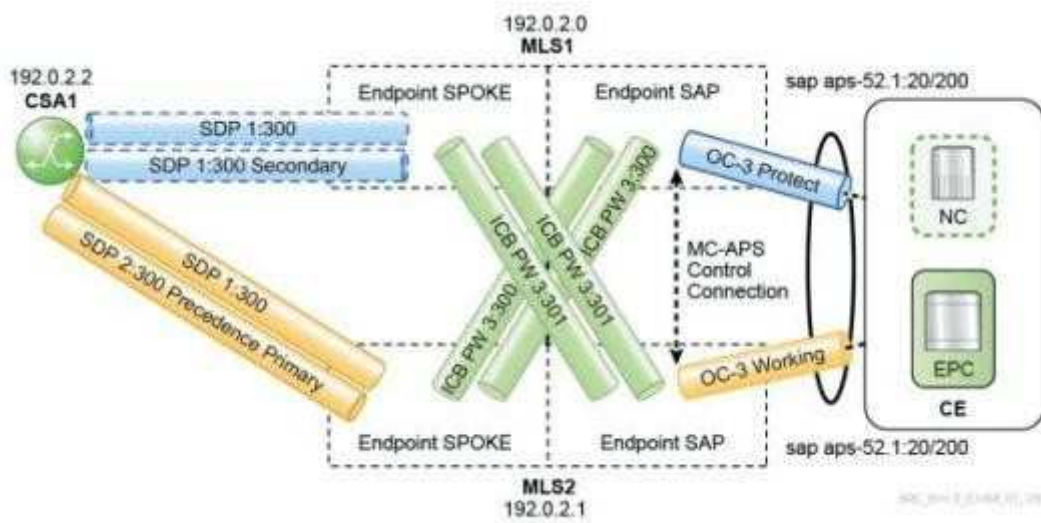
Given the diagram shown, and the following information:

· Configured on CSA1 and the two MLS routers is redundant aPipe 300 · Interchassis Backup Pseudowires
(ICB-PW) provide a path of last resort to the Customer Edge (CE) Service Access Points (SAPs)
· Multichassis Automatic Protection Switching (MC-APS) protects the CE access ports · Assume normal
status on all aPipe 300 spoke Service Distribution Points (SDPs)

If the CSA1 primary spoke SDP fails, which three statements correctly describe the resulting status of the
MLS1 aPipe 300 endpoint objects? (Choose three)

A. SAP aps-52.1:20/200 active
B. SAP aps-52.1:20/200 standby
C. Spoke SDP 3:300 active
D. Spoke SDP 3:300 standby
E. Spoke SDP 3:301 active
F. Spoke SDP 3:301 standby

**Correct Answer:** BCF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 92
Click on the exhibit.
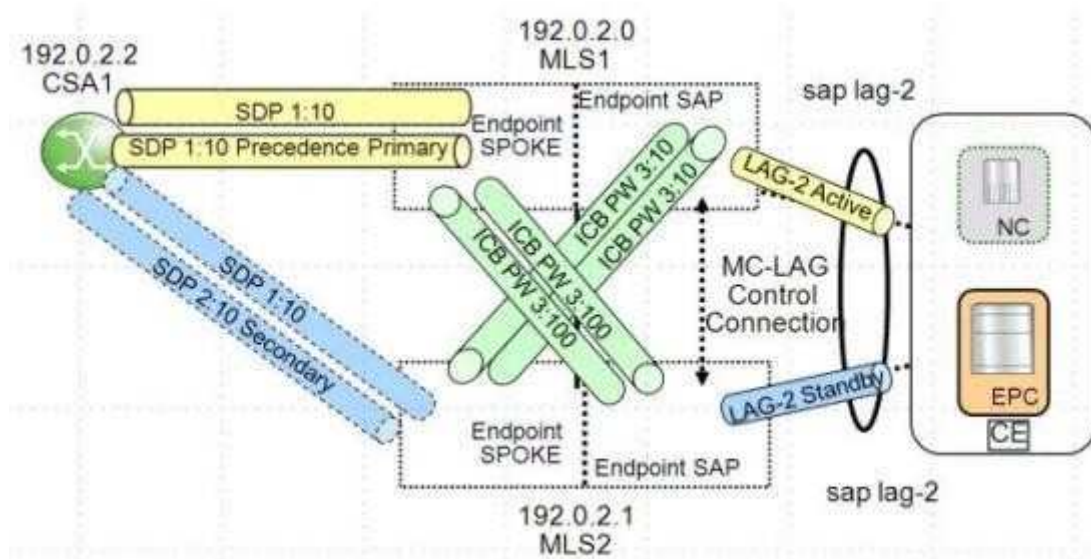
Given the diagram shown, and the following information:

· Configured on CSA1 and the two MLS routers is redundant ePipe 10 · Interchassis Backup Pseudowires (ICB-PW) provide a path of last resort to the Customer Edge (CE) Service Access Points (SAPs)
· A Multichassis Link Aggregation Group (MC-LAG) protects the CE access ports · Assume normal status on all ePipe 10 spoke Service Distribution Points (SDPs)

If the active LAG member fails, which three statements correctly describe the resulting status of the MLS2 ePipe 10 endpoint objects? (Choose three)

A. Spoke SDP 1:10 active
B. Spoke SDP 1:10 standby
C. Spoke SDP 3:10 active
D. Spoke SDP 3:10 standby
E. Spoke SDP 3:100 active
F. Spoke SDP 3:100 standby

Correct Answer: ADF
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 93
Click on the exhibit

```
A:NodeA>config>service>apipe# info
----------------------------------------------------
         description "3G_BTS02"
         endpoint "apipe" create
      exit
      sap bundle-ima-1/1.1:200/10 create
      exit
      spoke-sdp 1:200 endpoint "apipe" create
         precedence primary
      exit
      spoke-sdp 2:200 endpoint "apipe" create
      exit
      no shutdown
```

Given the configuration shown:
Which statement correctly describes the aPipe service configuration shown?

A. The aPipe provides ATM cell mode vc-type atm-vcc service
B. The aPipe can carry traffic for multiple ATM virtual circuits
C. The service will keep traffic on the secondary pseudowire after a failure and recovery
D. Cell concatenation is enabled on the SAP

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 94
Click on the exhibit
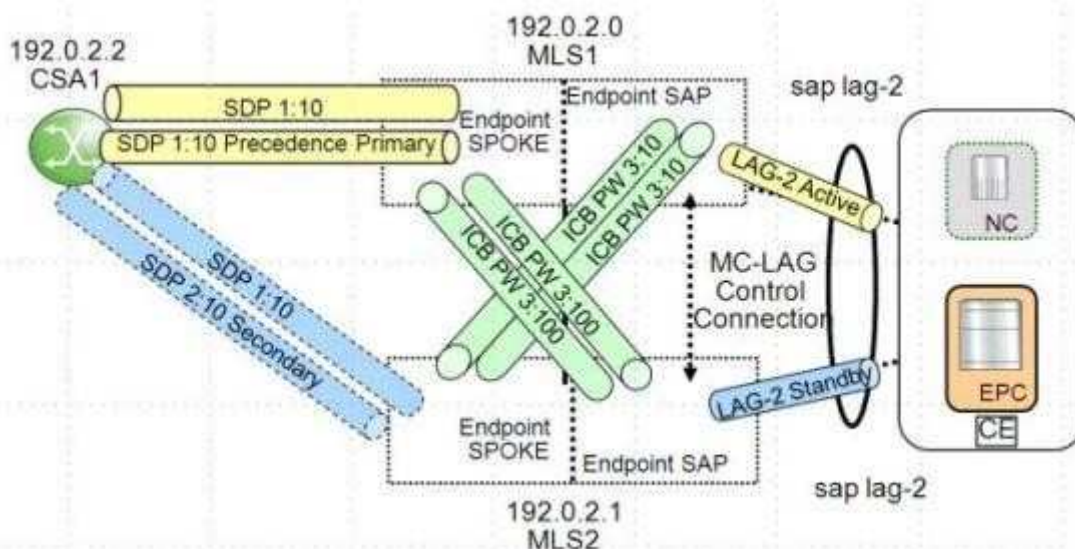
Given the diagram shown, and the following information:

· Configured on CSA1 and the two MLS routers is redundant ePtpe 10 · Interchassis Backup Pseudowires
(ICB-PW) provide a path of last resort to the Customer Edge (CE) Service Access Points (SAPs)
· A Multichassis Link Aggregation Group (MC-LAG) protects the CE access ports · Assume normal status

on all ePipe 10 spoke Service Distribution Points (SDPs)

Which statement correctly describes traffic flow after a failure on the Active MC-LAG member?

A. CSA1 forwards traffic through spoke SDP 2:10 to MLS2, which forwards it from endpoint SPOKE to endpoint SAP and out LAG 2
B. CSA1 forwards traffic through spoke SDP 2 10 to MLS2, which forwards it to endpoint SAP and through ICB spoke SDP 3:100 to MLS1
C. CSA1 forwards traffic through spoke SDP 1:10toMLSl,whichforwardsittoendpointSAPandthroughICB spoke SDP3:10toMLS2
D. CSA1 forwards traffic through spoke SDP 1:10 to MLS1,which forwards it to endpoint SPOKE and through ICB spoke SDP 3:100 to MLS2

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 95
Which statement describes a 3rd Generation Partnership Project (3GPP) provided service?

A. It sets standards for CDMA voice and data communications techniques
B. It develops the specifications for current LTE network designs and enhancements
C. It maintains RFCs for Internet applications, protocols, and network management techniques
D. It sets recommendations for telecom network operations and design

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 96
Which statement describes a Cell Site Aggregator (CSA) function?

A. It provides control functions for multiple base station technologies
B. It delivers 2G, 3G, and AG user and control traffic for aggregation at the BTP gateway
C. It provides the highest aggregation level in the MSP network
D. It presents a routed interface to the MSP Gateway (MG)router

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 97
How does a Multilink Point-to-Point (ML-PPP) endpoint indicate its desire to implement the Multilink Protocol (MP)?

A. It sends an endpoint discriminator during the Internet Protocol-Control Protocol (IPCP) negotiations
B. It sets the Short Sequence Number (SSN) flag in its Link Control Protocol (LCP) messages
C. It sets the Maximum Received Reconstructed Unit (MRRU) option in its link LCP messages
D. It sends protocol identifier 0x003d (MP) in its Network Control Protocol (NCP) messages

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 98
Click on the exhibit.

```
A:MLS2# show multilink-bundle bundle-ppp-1/2.1

===============================================================================
Bundle Summary
===============================================================================
Bundle              Type    Admin    Oper     Port      Min    Total/
Id                          State    State    State     Links  Active Links
-------------------------------------------------------------------------------
bundle-ppp-1/2.1    mlppp   Up       Down     Link Up   1      3/2
-------------------------------------------------------------------------------
Bundles : 1
===============================================================================
```

Upon initial configuration and turn up, what does this show result indicate about the Multilink Point-to-Point (ML-PPP) bundle's current state?

A. The local or remote Layer 3 interface is operationally down
B. The number of bundle links has dropped below the minimum threshold
C. The remote bundle is administratively shut down
D. PPP Link Control Protocol (LCP) negotiations failed

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 99
Click on the exhibit.

```
A:MLS1# show port 1/2/1.1.1.1.1

==============================================================================
TDM DS0 Chan Group
==============================================================================
Description        : DS0GRP
Interface          : 1/2/1.1.1.1.1
TimeSlots          : 2-32
Speed              : 64                    CRC                 : 16
Admin Status       : up                    Oper Status         : down
BER SF Link Down   : disabled
Last State Change  : 11/15/2011 12:26:39   Chan-Grp IfIndex    : 574652503

Configured mode    : access                Encap Type          : ipcp
Admin MTU          : 1502                  Oper MTU            : 1502
Scramble           : false
Physical Link      : yes                   Bundle Number       : none
Idle Cycle Flags   : flags                 Load-balance-algo   : Default
Psyload Fill Type  : n/a                   Payload Pattern     : N/A
Signal Fill Type   : n/a                   Signal Pattern      : N/A
Ing. Pool % Rate   : 100                   Egr. Pool % Rate    : 100
Egr. Sched. Pol    : N/A
==============================================================================
...output truncated
```

Given the following:
· On the OC-3 port, each provisioned channel group contains all available timeslots. The command result illustrates which circuit status?

A. The DS1 channel group is administratively turned down
B. The E1 circuit physical link is operationally down
C. The multilink bundle has no operational member links
D. The associated Layer 3 interface is operationallydown

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 100
Which statement describes the operation of the ITU-T Ethernet Synchronization Messaging Channel (ESMC)?

A. The ESMC transports time stamped packets for time of day and phase synchronization
B. The ESMC provides the bit stream upon which the slave clocks set their frequency
C. The ESMC provides a logical channel through which the slave traces its clock source
D. The ESMC describes the slave clock's quality and stratum level

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 101
Which IEEE 1588v2/Precision Time Prolocol (PTP) v2 message carries the master clock's characteristics for Best Master Clock Algorithm (BMCA) use?

A. Sync
B. Sync__grant

C. Announce

D. Delay_Response

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 102
A 7750 Service Router (SR) receives BITS clocking over a Superframe (SF) framed DS1 circuit. Assume SONET mode operation, which quality level does the router associate with this circuit?

A. QL-DUS

B. QL-EEC2

C. QL-SMC

D. QL-STU

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 103
As which clock type must an IEEE 1588v2 node operate in order to slave to the Primary Reference Clock (PRC) and serve as a master to downstream nodes?

A. Boundary

B. Ordinary Master

C. Ordinary Slave

D. Peer-to-peer transparent clock

E. End-to-end transparent clock

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 104
Which statement correctly describes the IEEE 1588v2 two-way synchronization operating mode?

A. The slave nodes send Follow_up messages after each Sync message

B. The slave sets its clock offset based on a pair of received Sync messages

C. The slave uses two sets oftimestamps to calculate its clock offset

D. The slave verifies the Sync messages with associated Follow_up messages

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 105
Click on the exhibit.

```
----------------------------------------------------
            ref-order external ref1 ref2
            ref1
                source-ptp-clock 1
                no shutdown
            exit
            ref2
                source-port 1/2/7
                no shutdown
            exit
            external
                input-interface
                    impedance high-impedance
                    no shutdown
                exit
            exit
----------------------------------------------------
```

Given the configuration shown and the following conditions:

· The external reference is offline
· Reference 1 receives Quality Level (QL) - EEC2
· Reference 2 receives QL STU

Which quality level will the SAR router advertise to its Synchronous Ethernet (SyncE) peers?

A. QL-DUS
B. QL-EEC2
C. QL-STU
D. QL-PRS
E. QL-UNC

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 106
Click on the exhibit.

```
#------------------------------------------------------
echo "IP Configuration"
#------------------------------------------------------
        interface "CSA1_MLS1"
                address 192.0.2.17/31
                ldp-sync-timer 45
                port 1/2/7
                bfd 500 receive 500 multiplier 3
        exit
        interface "CSA1_MLS2"
                address 192.0.2.19/31
                ldp-sync-timer 60
                port 1/2/8
                bfd 500 receive 500 multiplier 3
        exit
        interface "system"
                address 192.0.2.2/32
        exit
#------------------------------------------------------
echo "Static Route Configuration"
#------------------------------------------------------
        static-route 192.0.2.0/32 next-hop 192.0.2.18 preference 10
        static-route 192.0.2.0/32 next-hop 192.0.2.16 bfd-enable ldp-sync
        static-route 192.0.2.1/32 next-hop 192.0.2.16 preference 10
        static-route 192.0.2.1/32 next-hop 192.0.2.18 bfd-enable ldp-sync
...
```

Given the configuration shown, and the following condition:

· The preferred route to prefix 192.0.2.1/32 failed and recovered · Label Distribution Protocol (LDP) is enabled on the interfaces

Once the primary path recovers, how long will the router hold down the preferred route to prefix 192.0.2.1/32?

A. 45 seconds
B. 60 seconds
C. 35 seconds
D. 180 seconds

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 107
A Versatile Services Module (VSM) Cross Connect ID (CCID) can bind which service set?

A. An ePipe and Virtual Private LAN Service (VPLS)
B. An iPipe and anInternet Enhanced Service (IES)
C. An ePipe and a Routed-VPLS (R-VPLS)
D. An iPipe and an R-VPLS

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 108
Click on the exhibit.
Given the configurations shown and the following information:

· Multilayer Switch (MLS) 1 and 2 host duplicate Virtual Private Routed Network (VPRN) services.
· Configured on the interfaces L3_VLAN402 is Virtual Router ID (VRID) 1 · All connected Network Control (NC) elements support Address Resolution Protocol (ARP) Based on the configuration shown, which statement describes the VRIDs expected behavior in normal operations?

A. MLS2 interface L3_VLAN402 will normally be the VRID's master interface
B. All traffic egressing the current master interface uses the VRID virtual IP address
C. The current master will answer ping requests for both its own and the VRID virtual IP address
D. The current master responds to ARP requests for the virtual IP address with its own Media Access Control (MAC) address

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 109
Click on the exhibit


```
A:MLS1>config>service# info
-------------------------------------------------
        vprn 2 customer 1 create
            description "3G Voice VPRN"
            router-id 198.51.100.0
            route-distinguisher 65100:2
            interface "ipipe200" create
                description "MLPPP_BTS02_URC01"
                address 198.51.100.25/30
                sap 1/1/9:200 create
                exit
            exit
            no shutdown
        exit
        ipipe 200 customer 1 create
            sap 1/1/8:200 create
                ce-address 198.51.100.25
                mac 00:00:00:02:00:01
            exit
            spoke-sdp 1:200 create
                ce-address 198.51.100.24
                no shutdown
            exit
            no shutdown
        exit
```

Given the configuration shown and the following information:
· The Virtual Private Routed Network (VPRN) service 2 interface "ipipe200" cross-connects the VPRN with the IP Interworking Pipe ((Pipe) service 200 SAP 1/1/8:200. · The iPipe 200 spoke-SDP 1:200 transports traffic to and from the Cell Site Aggregator (CSA) router
· The CSA hosts the far-end iPipe service on which a Multilink Point-to-Point (ML-PPP) bundle SAP is configured

Under the ipipe 200 context, what purpose does the Media Access Control (MAC) "mac 00:00:00:02:00:01" entry serve?

A. The iPipe assigns this destination MAC address to all frames exiting on the SAP and targeting the VPRN "ipipe200" interface Internet Protocol (IP) address
B. The iPipe service verifies that all tunneled frames received from the CE device 198.51.100.24 use the correct source MAC address 00:00:00 02:00:01
C. The iPipe service verifies and accepts on SAP ingress those unicast frames targeting the destination

MAC address 00:00:00:02:00:01

D. The iPipe assigns destination MAC 00:00:00:02:00:01 to all frames traveling through the service and targeting the CE device destination IP address 198.51.100.24

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 110
Which SAP port and identifier format is correct for use in an aPipe service configured for N=1 cell mode operation?

A. 1/1/7:2.1
B. 1/2/1:100/200
C. 1/2/2.1
D. 1/1/10:200

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 111
Click on the exhibit

```
A:NodeA>config>service>cpipe# info
--------------------------------------------------------
            description "2G_BTS03"
            endpoint "cpipe" create
            exit
            sap 1/1/7.1 create
            exit
            spoke-sdp 1:300 endpoint "cpipe" create
                precedence primary
            exit
            spoke-sdp 2:300 endpoint "cpipe" create
            exit
            no shutdown
```

Given the configuration shown:
What must you configure in the cPipe service to allow it to set the service's payload and jitter buffer sizes?

A. Configure CEM on the TDM port channel group
B. Configure CEM on the SAP
C. Configurethejitterbufferinthebaseservice context
D. Set the service Maximum Transmission Unit (MTU)

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Explanation:

QUESTION 112
Click on the exhibit

```
A:POC3-1>config>service>epipe# show router ldp bindings service-id 250 detail

================================================================================
LDP LSR ID: 192.0.2.0
================================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
        A - Apipe Service, F - Fpipe Service, I - IES Service, R - VPRN service
        P - Ipipe Service, WP - Label Withdraw Pending, C - Cpipe Service
        BU - Alternate Next-hop for Fast Re-Route, TLV - (Type, Length: Value)
================================================================================
LDP Service Binding
================================================================================
--------------------------------------------------------------------------------
Type                 : E-Eth         VcId                  : 150
SvcId                : 250           SdpId                 : 1
Peer Address         : 192.0.2.2     Vc-switching          : Yes 4:250
LMTU                 : 1500          RMTU                  : 0
Egr. Lbl             : --            Egr. Ctl Word         : No
Egr. Flags           : None          Egr. Status Bits      : N/A
Egr. Flow Label Tx   : No            Egr. Flow Label Rx: No
Ing. Lbl             : 131047U       Ing. Ctl Word         : No
Ing. Flags           : None          Ing. Status Bits  : Supported (0x0)
Ing. Flow Label Tx   : No            Ing. Flow Label Rx: No
--------------------------------------------------------------------------------
Type                 : E-Eth         VcId                  : 250
SvcId                : 250           SdpId                 : 4
Peer Address         : 192.0.2.4     Vc-switching          : Yes 1:150
LMTU                 : 1500          RMTU                  : 1500
Egr. Lbl             : 1310685       Egr. Ctl Word         : No
Egr. Flags           : None          Egr. Status Bits  : Supported (0x0)
Egr. Flow Label Tx   : No            Egr. Flow Label Rx: No
Ing. Lbl             : 131051W       Ing. Ctl Word         : No
Ing. Flags           : Withdraw      Ing. Status Bits  : Supported (0x18)
Ing. Flow Label Tx   : No            Ing. Flow Label Rx: No
Ing. Wdraw Reason    : noSwLabel
================================================================================
No. of VC Labels: 2
```

Given the show result shown, and the following information:
· A switched ePipe Virtual Private Wire Service (VPWS) transits the Switching Provider Edge (S-PE) router POC3-1

What condition might cause the spoke Service Distribution Point (SDP) 1 status shown?

A. The SDP 1 Virtual Circuit (VC-ID) doesn't match that configured on peer 192.0.22
B. The peer 192.0 2.2 service Maximum Transmission Unit (MTU) is set too
C. The peer 192.0.2.2 Targeted Label Distribution Protocol (T-LDP) session is down
D. The two S-PE spoke SDP VC-IDs must match

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 113
You are configuring an ePipe 250 service on the Switching Provider Edge (S-PE) router. After you try to add the second spoke Service Distribution Point (SDP) binding, the router displays the following error message:

A. MLS1>config>service>epipe$ spoke-sdp 2:250 createMINOR: SVCMGR #1954 The service cannot support any more SDP bindingsHow must you correct this error to complete the S-PE configuration?

B. Change the spoke SDP virtual circuit (VC)-ID and bind it to the service
C. Create an explicitvc-switching endpoint and add the spoke SDPs to it
D. Delete the service and recreate it using the vc-switching keyword
E. Delete the spokes and recreate them using the vc-switching keyword

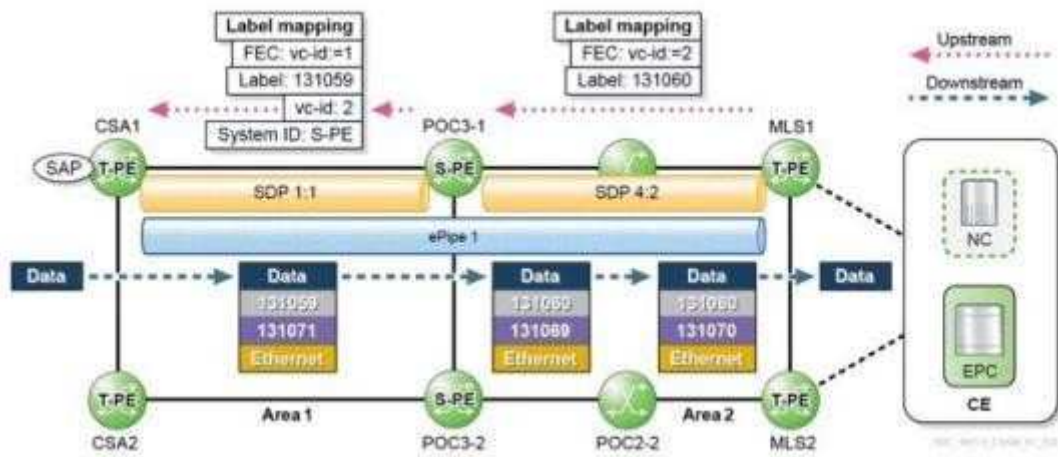**Correct Answer:** C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 114
Click on the exhibit

Given the diagram shown:
Which statement correctly describes how the Switching Provider Edge (S-PE) handles Targeted Label Distribution Protocol (T-LDP} messages sent on behalf of the ePipe 1 service?

A. As soon as the S-PE receives a label from the downstream T-PE it returns its own label to the source
B. The S-PE appends to T-PE Forwarding Equivalence Class (FEC)messages a pseudowire switching Type-Length-Value (TLV)
C. The S-PE replaces the T-PE signaled FEC with its own System ID before relaying messages upstream to CSA1
D. The S-PE adds a label to the stack to indicate to the upstream T-PE that it is an S-PE

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 115
What function does a Backhaul Transport Provider (BTP) Aggregation Gateway (BG) perform in the backhaul transport?

A. It originates and terminates mobile operator service tunnels
B. It provides Automatic Protection Switching (APS) protected interfaces to the MTSO NC elements
C. It presents Layer 3 interfaces to the MG and CSA devices
D. It delivers point-to-point Ethernet or TDM transport to the MSPs

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 116
In a mobile backhaul network, which component belongs to the Backhaul Transport Provider (BTP)?

A. The Metro Ethernet Network (MEN)
B. The User Network Interface (UNI)-NC
C. TheUNI-BS
D. The base station access links

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 117
Which payload type set in a SONET-framed OC-3 port creates individual DS1 virtual tributaries?

A. Virtual Tributary (VT) 1.5
B. VT2
C. Virtual Container (VQ-11
D. VC-12

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 118
Given the following:
· A 3G base station connects to an aPipe service via an Inverse Multiplexing over ATM (IMA) bundle SAP

Which timing technique can deliver a frequency reference from the Cell Site Aggregator (CSA) router to the base station?

A. Synchronous Ethernet (SyncE)
B. Adaptive Clock Recovery (ACR)
C. IEEE 1588v2/Precision Time Protocol (PTP)
D. Time Division Multiplexing (TDM) line timing

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 119
Which field included in the IEEE 802.3 Organization Specific Slow Protocol (OSSP) message header indicates that the clock quality level has changed?

A. Quality Level Type-Length-Value (TLV) field
B. The version field
C. The ITU subtype field
D. The Event Flag field
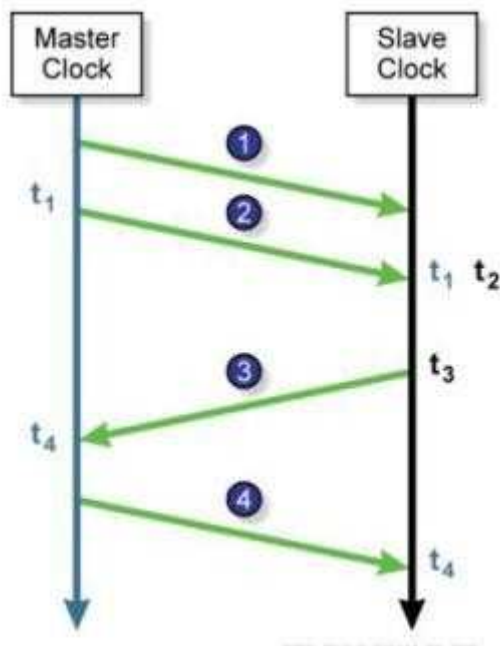
Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 120
Click on the exhibit.

Each numbered item, 1, 2, 3, and 4, represents a message exchanged between an IEEE 1588v2/Precision Time Protocol (PTP) v2 master and slave.

With which message does the master pass the t4 timestamp to the slave at item 4?

A. Announce
B. Delay_request
C. Delay_response
D. Pdelay_response

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 121
Which IEEE 1588v2/Precision Time Protocol (PTP) v2 message carries the second master time stamp value used in a two-way operation for Packet Delay Variation (PDV) calculations?

A. Announce
B. Sync

C. Announce_granted

D. Delay_Response

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 122
Which is an important design consideration when deploying packet-based synchronization techniques?

A. The master and slave nodes must be directly connected via point-to-point links

B. The links over which the packets travel must be low-latency and high-bandwidth

C. To avoid timing loops, the network should not include any backup masters

D. The designcannotinclude a mixture of packet-based and physical layer technologies

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 123
With which message type does an IEEE l583v2/Precision Time Protocol (PTP) v2 slave announce itself on the network?

A. Sync_Request

B. Announce_Request

C. Announce

D. Delay_Request

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 124
Which statement correctly describes redundant ePipe service SAP creation?

A. You must associate the SAP with an endpoint at the time of its creation

B. You may create up to two SAPs in the explicit endpoint

C. The SAP must be created before the Interchassis Backup Pseudowire (ICB-PW)

D. You configure the SAP as a service implicit endpoint object

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 125
Click on the exhibit.

```
A:CSA2# show router ldp bindings detail

===========================================================================
LDP LSR ID: 192.0.2.3
===========================================================================
Legend: U - Label In Use, N - Label Not In Use, W - Label Withdrawn
        S - Status Signaled Up,  D - Status Signaled Down
        E - Epipe Service, V - VPLS Service, M - Mirror Service
...output truncated
===========================================================================
...output truncated
===========================================================================
LDP Service FEC 128 Bindings
===========================================================================
---------------------------------------------------------------------------
Type              : E-Eth             VcId            : 10
SvcId             : 10                SdpId           : 1
Peer Address      : 192.0.2.0         Vc-switching    : No
LMTU              : 1500              RMTU            : 1500
Egr. Lbl          : 1310668           Egr. Ctl Word   : No
Egr. Flags        : None              Egr. Status Bits : Supported (0x0)
Ing. Lbl          : 131068U           Ing. Ctl Word   : No
Ing. Flags        : None              Ing. Status Bits : Supported (0x0)
---------------------------------------------------------------------------
Type              : E-Eth             VcId            : 10
SvcId             : 10                SdpId           : 2
Peer Address      : 192.0.2.1         Vc-switching    : No
LMTU              : 1500              RMTU            : 1500
Egr. Lbl          : 1310673           Egr. Ctl Word   : No
Egr. Flags        : None              Egr. Status Bits : Supported (0x0)
Ing. Lbl          : 131069U           Ing. Ctl Word   : No
Ing. Flags        : None              Ing. Status Bits : Supported (0x0)
---------------------------------------------------------------------------
===========================================================================
No. of VC Labels: 2
...output truncated
```

Given the local Provider Edge (PE) router show command result shown:
The local PE originates the redundant ePipe 10 that terminates on each of two remote PE routers.
Assuming both pseudowires have the same precedence value, how does the local router choose the active pseudowire?

A. The lowest numeric peer address
B. The lowest numeric sdp-id
C. The lowest numeric vc-id
D. The lowest egress label value

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 126
Which statement correctly descnbes pseudowire switched Virtual Private Wire Service (VPWS) creation?

A. You must use the vc-switching keyword on both the Terminating and Switching Provider Edge (T-PE/S-PE) routers
B. You must create an explicit endpoint on the S-PE services
C. The S-PE may include Services Access Points (SAPs) for local service access
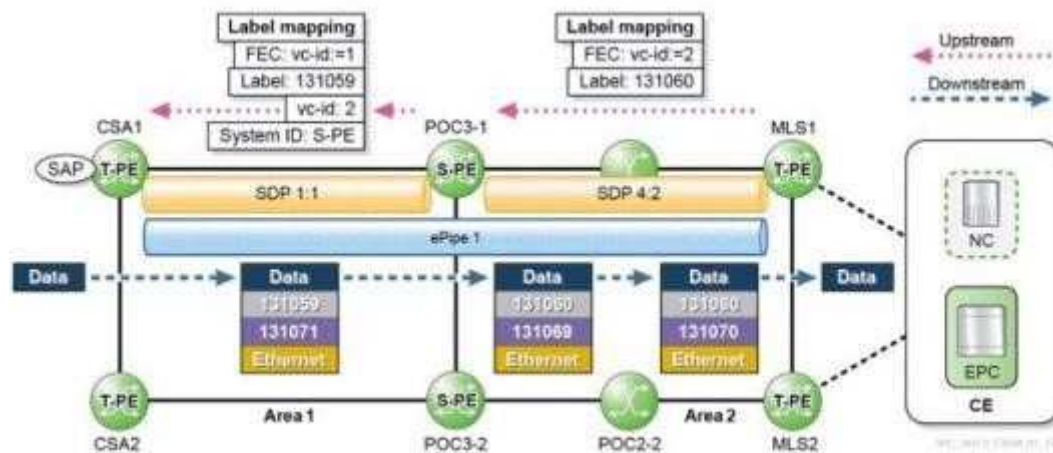D. The T-PE router services may include as many as four redundant pseudowires

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 127
Click on the exhibit

Given the diagram shown:
Which statement correctly describes the control plane behavior of the Switching Provider Edge (S-PE) router in support of the switched ePipel service?

A. The S-PE signals service labels as soon as its service is administratively enabled
B. The S-PE repeats the service labels it receives from the downstream T-PE to the upstream T- PE
C. The S-PE must wait for a T-PE to signal a status change before sending a change on its local pseudowires
D. The S-PE repeats pseudowire status notification messages received from one T-PE to the other

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 128
The Metro Ethernet Forum (MEF) performs what standardization function?

A. It provides mobile network standardized design and development guidelines
B. It sets standards for current CDMA and HRPD voice and data communications
C. It defines architectures and protocols for carrier-class Ethernet applications
D. It develops recommendations for broadband service delivery and transport OAM

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 129
Which statement describes the message characteristics of ITU-T Ethernet Synchronization Messaging Channel (ESMC)?

A. ESMC messages can be routed throughout the timing domain

B. ESMC messages target the slow protocol multicast destination address
C. SMC messages target the slave's unicast Internet Protocol (IP) address
D. ESMC messages deliver timestamps for phase synchronization

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 130
Which statement describes a Synchronous Ethernet (SyncE) capability as defined by ITU-T recommendations?

A. Synchronous Ethernet conveys clock quality information in the Ethernet frame preamble
B. Synchronous Ethernet slave nodes peer with a pre-defined master node
C. Synchronous Ethernet provides frequency, time of day, and phase synchronization references
D. Synchronous Ethernet uses the Ethernet frame preamble to deliver a synchronization bit stream

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 131
Click on the exhibit.
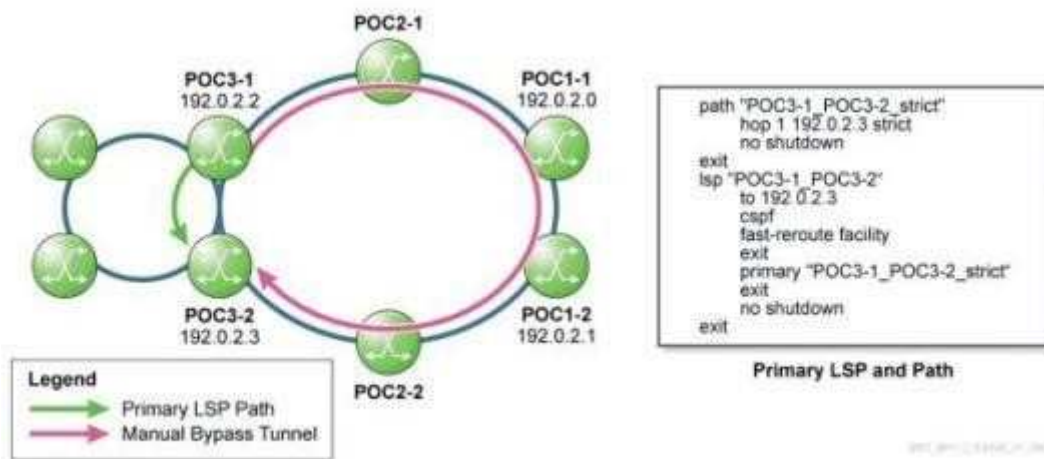
path "POC3-1_POC3-2_strict"
    hop 1 192.0.2.3 strict
    no shutdown
exit
lsp "POC3-1_POC3-2"
    to 192.0.2.3
    cspf
    fast-reroute facility
    exit
    primary "POC3-1_POC3-2_strict"
    exit
    no shutdown
exit

Primary LSP and Path

Legend
→ Primary LSP Path
→ Manual Bypass Tunnel

Given the topology and the Multiprotocol Label Switching (MPLS) Label Switch Path (LSP) and path configurations shown:

You wish to protect the LSP POC3-1_POC3-2 with a manual bypass tunnel. Which statement correctly describes the requirement for implementing a manual bypass tunnel on router POC3-1?

A. The manual bypass tunnel must merge to the original path
B. You must enable manual bypass in the LSP POC3-1_POC3-2 context
C. Fast-reroute one-to-one must be configured on the protected LSP
D. The manual bypass tunnel path must avoid router POC3-2
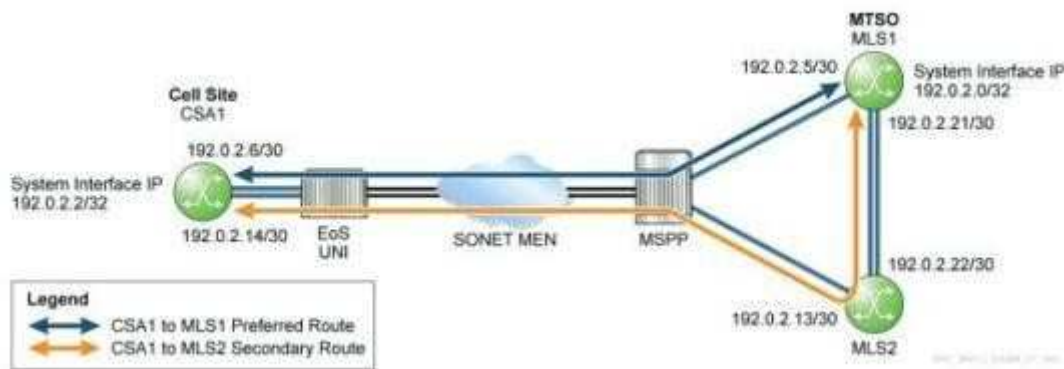
Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:
Explanation:

QUESTION 132
Click on the exhibit.

You must configure Label Distribution Protocol (LDP)-sync on the CSA1-to-MLS1 preferred static route.
The route must forward packets over the preferred route path as show in the diagram. Given the following:

· Bidirectional Forwarding Detection (BFD) must be enabled on the preferred route · BFD is configured on the interfaces
· The CSA1 router must choose the preferred route in normal operations · LDP sync timers are configured on the interfaces · LDP is enabled on the interfaces

Which command enables LDP sync on the CSA1 preferred static route targeting MLS1's system interface?

A. configure router static-route 192.0.2.0/32 next-hop 192.0.2.5 ldp-sync
B. configure router static-route 192.0.2.0/32 next-hop 192.0.2.13 bfd-enable ldp-sync
C. configure router static-route 192.0.2.0/32 next-hop 192.0.2.5 bfd-enable ldp-sync
D. configure router static-route 192.0.2.5/32 next-hop 192.0.2.0 ldp-sync

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 133
Which statement correctly describes how a physical loopback connection cross connects Layer 2 and Layer 3 services?

A. The Media Dependent Adapters) (MDA)on which the cross connects are created are limited to cross-connect use
B. Services using loopback Service Access Points (SAPs) must be assigned to a Cross Connect Aggregation Group (CCAG)
C. The cross connected Layer 2 service must be bound by name to the associated Layer 3 interface
D. The connections may support several cross connected services with unique SAP identifiers for each set

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 134
Which statement describes a Management-Virtual Private LAN Service (mVPLS) characteristic?

A. The mVPLS Service Access Points (SAPs) are interconnected in a loop identical to the protected services
B. An mVPLS runs Rapid Spanning Tree Protocol (RSTP) to block individual physical access ports
C. The mVPLS runs Spanning Tree Protocol (STP) on behalf of the customer edge (CE) devices
D. The mVPLS SAP Virtual LAN (VLAN) tags must match those used in the protected service SAPs

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 135
Click on the exhibit
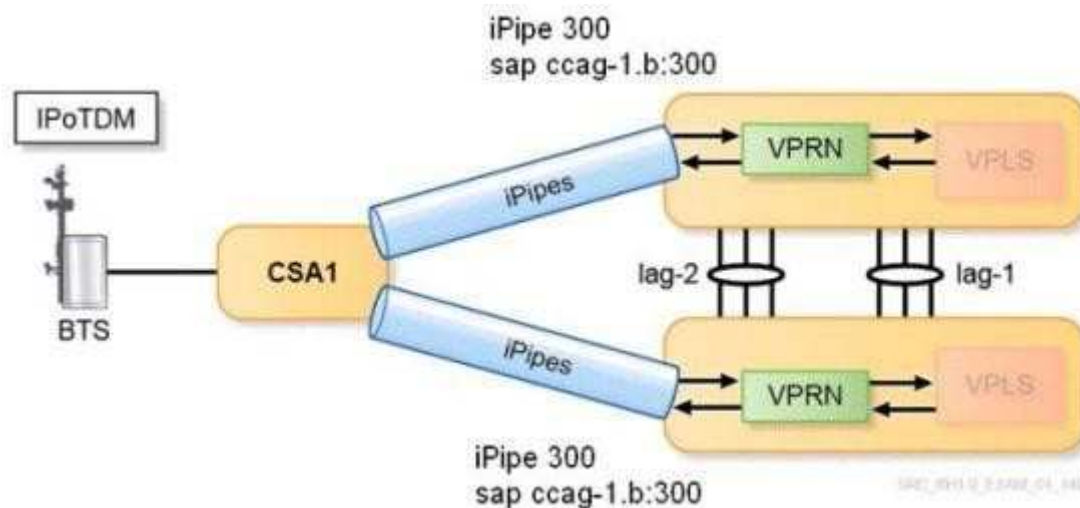
Given the diagram shown and the following information:
· Ethernet frames carrying payloads targeting the Base Transceiver Station (BTS) enter the iPipe through the Virtual Private Routed Network (VPRN) cross connected interface.

How does the iPipe service process frames received on ingress to sap ccag-1 b:300?

A. The iPipe forwards all unicast payloads received in frames with a destination Media Access Control (MAC) address equal to the proxied BTS MAC address
B. The iPipe extracts the Internet Protocol (IP) packets from all frames received on the Ethernet SAP and forwards those with a destination IP equal to the BTS IP address
C. The iPipe blocks multicast and broadcast frames at the Ethernet SAP ingress and only forwards unicast payloads to the BTS
D. The iPipe SAP sends an Address Resolution Protocol (ARP) request for the BTS's MAC address and forwards the frame with the BTS destination MAC address
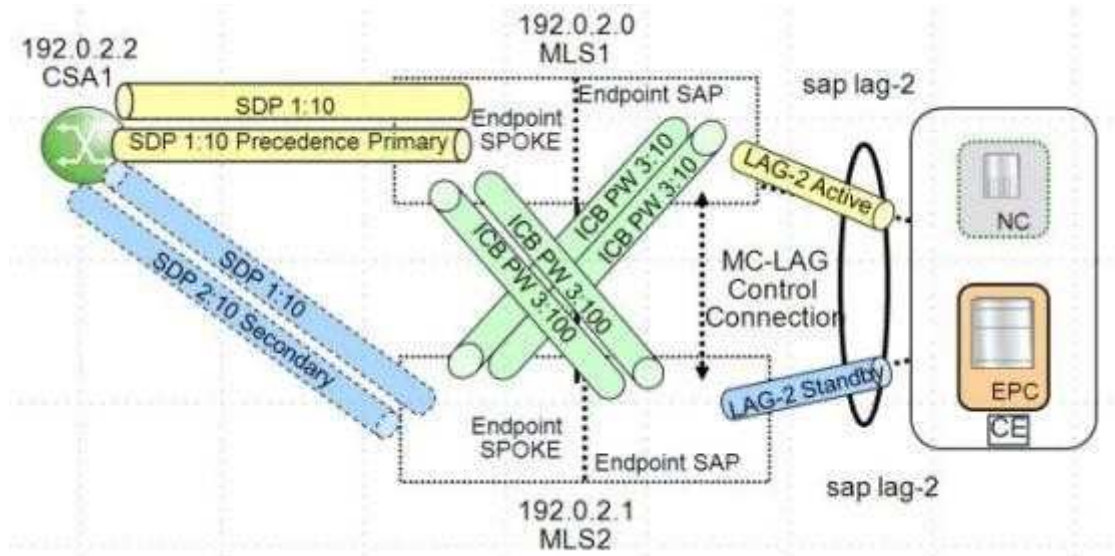
Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 136

Click on the exhibit

Given the diagram shown, and the following information:
· Configured on CSA1 and the two MLS routers is redundant ePipe 10 · Interchassis Backup Pseudowires
(ICB-PW) provide a path of last resort to the Customer Edge (CE) Service Access Points (SAPs)
· A Multichassis Link Aggregation Group (MC-LAG) protects the CE access ports · The primary spoke
Service Distribution Point (SDP) has failed

How does the ePipe service ensure that traffic continues flowing to the CE devices?

A. CSA1 moves traffic to the secondary spoke SDP, where it crosses to endpoint SAP and travels through
   ICB PW spoke 3:100toMLS1
B. CSA1 moves traffic to the secondary spoke SDP and the MLS1 MC-LAG control protocol switches the
   active LAG member to MLS2
C. CSA1 moves traffic to the secondary spoke SDP, where it enters endpoint SPOKE and travels through
   ICB PW spoke 3:10toMLS1
D. CSA1 moves traffic to the secondary spoke SDP, where MLS2 drops the traffic on ingress since the
   configuration shown is incorrect

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 137
Click on the exhibit

```
A:NodeA>config>port>tdm# info
----------------------------------------------
            ds1
                framing ds1-unframed
                channel-group 1
                    encap-type cem
                    no shutdown
                exit
                no shutdown
            exit
```

Given the configuration shown and the following information:
- Each service packet transports eight frames
When used in a cPipe service, what is the payload size for the port configuration shown?

A. 8 bytes
B. 24 bytes
C. 92 bytes
D. 256 bytes

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 138
Which two wireless technologies has the 3rd Generation Partnership Project 2 (3GPP2) developed?
(Choose two.)

A. 2G Global Systems for Mobile (GSM)
B. 2G Code Division Multiple Access (CDMA)
C. 2.75G Enhanced Data Rates for GSM Evolution (EDGE)
D. 3G Universal Mobile Telecommunications System (UMTS)
E. 3G Evolution-Data Optimized (EV-DO)
F. 4G Long Term Evolution (LTE)
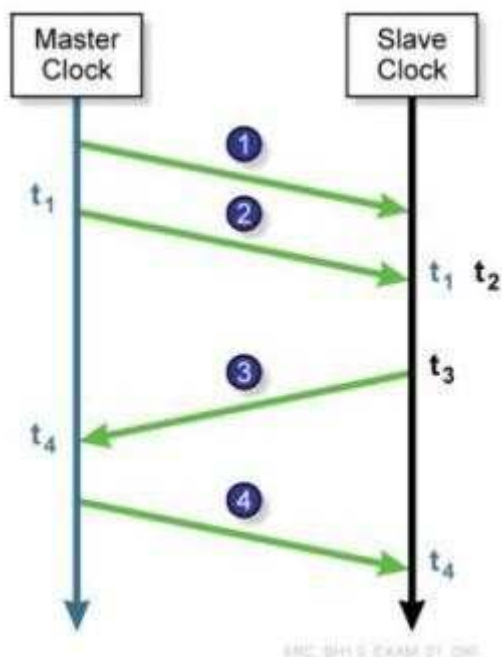
Correct Answer: BE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 139
Click on the exhibit.

Each numbered item, 1, 2, 3, and 4, represents a message exchanged between an IEEE 1588v2/Precision Time Protocol (PTP) v2 master and slave. With which message does the master pass its t1 timestamp to the slave clock at item 2?

A. Announce
B. Delay_request
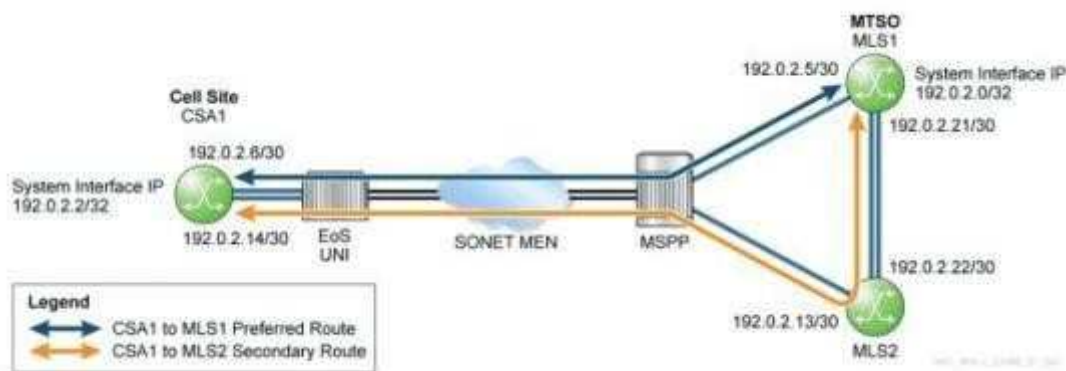C. Delay_response
D. Sync

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 140
Click on the exhibit.

You wish to configure a preferred and a secondary static route on CSA1. targeting the MLS1 system interface. The preferred route must forward packets over the preferred route path as shown in the diagram. Given the following:

· BFD must be enabled on the preferred route
· BFD is configured on the interfaces
· The BFD interface transmit and receiver timers are 500 ms · The BFD interface multiplier is 3
· The CSA1 router must choose the preferred route in normal operations

Which command example correctly configures the PREFERRED static route on CSA1?

A. configure router static-route 192 0.2.0/32 next-hop 192.0.2.0 bfd-enable
B. configure router static-route 192.0.2.0/32 next-hop 192.0.2.5 bfd-enable
C. configure router static-route 192.0.2.5/30 next-hop 192.0.2.5 500 receive 500 multiplier 3
D. configure router static-route 192.0.2.0/32 next-hop 192.0.2.13 bfd-enable precedence 10

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 141
Click on the exhibit.

```
#----------------------------------------------
echo "IP Configuration"
#----------------------------------------------
        interface "CSA1_MLS1"
            address 192.0.2.17/31
            ldp-sync-timer 45
            port 1/2/7
            bfd 300 receive 300 multiplier 3
        exit
        interface "CSA1_MLS2"
            address 192.0.2.19/31
            ldp-sync-timer 60
            port 1/2/8
            bfd 500 receive 500 multiplier 3
        exit
        interface "system"
            address 192.0.2.2/32
        exit
#----------------------------------------------
echo "Static Route Configuration"
#----------------------------------------------
        static-route 192.0.2.0/32 next-hop 192.0.2.18 preference 10
        static-route 192.0.2.0/32 next-hop 192.0.2.16 bfd-enable ldp-sync
        static-route 192.0.2.1/32 next-hop 192.0.2.16 preference 10
        static-route 192.0.2.1/32 next-hop 192.0.2.18 bfd-enable ldp-sync
...
```

Given the configuration shown, and the following condition:
· The next hop interface on the preferred path to prefix 192.0.2.0/32 failed · Label Distribution Protocol (LDP) is enabled on the interfaces

How long does the router wait before it moves traffic to the secondary route for this prefix?

A. 900 ms
B. 1.5 seconds
C. 45 seconds
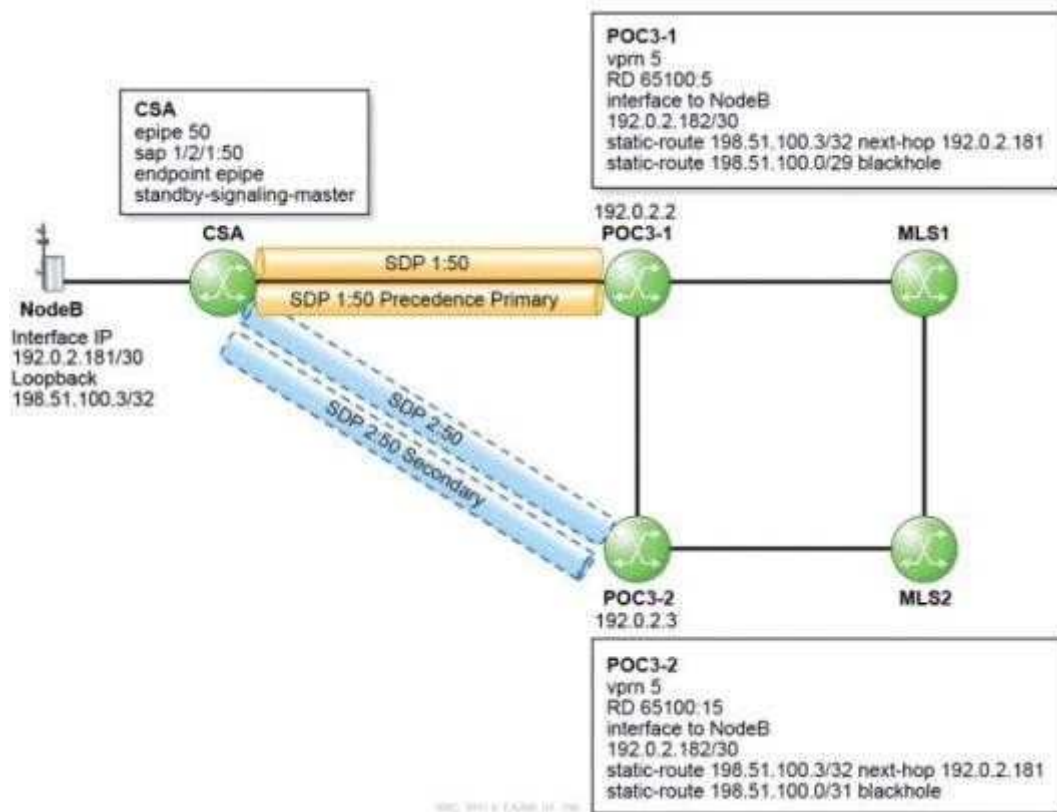D. 60 seconds

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 142
Click on the exhibit

CSA
epipe 50
sap 1/2/1:50
endpoint epipe
standby-signaling-master

POC3-1
vprn 5
RD 65100:5
interface to NodeB
192.0.2.182/30
static-route 198.51.100.3/32 next-hop 192.0.2.181
static-route 198.51.100.0/29 blackhole

NodeB
Interface IP
192.0.2.181/30
Loopback
198.51.100.3/32

POC3-2
vprn 5
RD 65100:15
interface to NodeB
192.0.2.182/30
static-route 198.51.100.3/32 next-hop 192.0.2.181
static-route 198.51.100.0/31 blackhole

Given the diagram and the following information:

· Virtual Private Routed Network (VPRN) 5 spans the routers Point of Concentration (POC) 3-1 and 3-2 and the Multilevel Switch (MLS) routers MLS1 and MLS2 · Multiprotocol Border Gateway Protocol (MP-BGP) is configured and operational · Pseudowire status is signaled, as shown, on the ePipe/VPRN spoke Service Distribution Points (SDPs)

What might you configure on the services illustrated to hold down the primary VPRN NodeB loopback interface static route in case of an intermittent or rapid spoke SDP failure and recovery?

A. Set port hold down timers on the CSA to POC3-1 link
B. Configure Label Distribution Protocol (LDP) Sync on the VPRN static routes
C. Enable BGP next-hop tracking in the VPRN BGP peer groups
D. SetareverttimervalueontheCSAePipe50endpoint

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 143
Which three are components found in the backhaul transport Mobile Telephone Switching Office (MTSO) functional area? (Choose 3)

A. 2G Base Station Transceiver (BTS)
B. LTE Radio Network Controller (RNC)
C. EV-DO Radio Network Controller (RNC)
D. MSP Aggregation Gateway (MG)
E. GSM Base Station Controller (BSC)
F. Ethernet over SONET (EoS) UNI

Correct Answer: CDE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 144
In a Mobile Service Provider (MSP) network, which device aggregates traffic for delivery to the control elements?

A. BTP Aggregation Gateway (BG)
B. BTP Termination Device (BT)
C. MSP Aggregation Gateway (MG)
D. MSP Termination Device (MT)
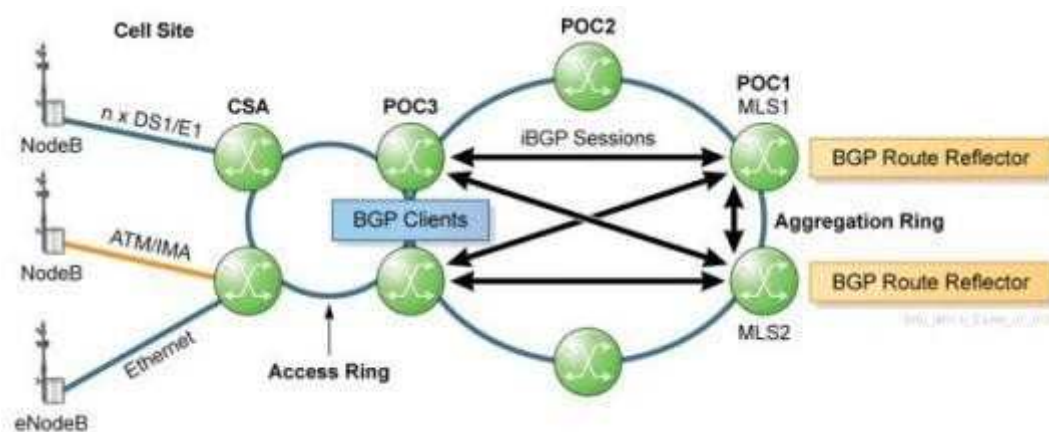
Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 145
Click on the exhibit.

Given the topology shown:
Which Border Gateway Protocol (BGP) feature must be configured on MLS1 and MLS2 to allow them to act as iBGP route reflectors?

A. BGP peer tracking
B. Cluster IDs
C. BGP Route Reflection
D. Autonomous System (AS) Number

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 146
Which statement describes an instance where a control word would be required in an aPipe service?

A. ATM cell mode is used to map multiple virtual circuits into a single aPipe service
B. The aPipe service transports concatenated cells from an entire virtual path
C. The service carries just the cell payload and Equal Cost Multipath (ECMP) is used in the transport
D. A cell mode service must map different ATM virtual circuits to a service based on Quality of Service (QoS) profiles

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 147
The 3rd Generation Partnership Project (3GPP) wireless standards cover which three technologies? (Choose three.)

A. 2G Global Systems for Mobile (GSM)
B. 2G Code Division Multiple Access (CDMA)
C. 3G Universal Mobile Telecommunications System (UMTS)
D. 3G Evolution-Data Optimized (EV-DO)
E. 4G Long Term Evolution (LTE)
F. 3G High Rate Packet Data (HRPD)

Correct Answer: ACE
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 148
Click on the exhibit.

```
A:MLS2# show port 1/2/2.3.4.2.1

===============================================================================
TDM DS0 Chan Group
===============================================================================
Description       : DS0GRP
Interface         : 1/2/2.3.4.2.1
TimeSlots         : 1-24
Speed             : 64                 CRC               : 32
Admin Status      : up                 Oper Status       : up
BER SF Link Down  : disabled
Last State Change : 11/15/2011 13:01:18 Chan-Grp IfIndex  : 574686332

Configured mode   : access             Encap Type        : atm
Admin MTU         : 1524               Oper MTU          : 1524
Scramble          : true
Physical Link     : yes                Bundle Number     : none
Idle Cycle Flags  : n/a                Load-balance-algo : Default
Payload Fill Type : n/a                Payload Pattern   : N/A
Signal Fill Type  : n/a                Signal Pattern    : N/A
Ing. Pool % Rate  : 100                Egr. Pool % Rate  : 100
Egr. Sched. Pol   : N/A
===============================================================================
...output truncated
```

Given the following:
· On the OC-3 port, each provisioned channel group contains all available timeslots. The command result illustrates which OC-3 port characteristic?

A. On STS1-3,the second DS1 channel group in the fourth VTG is set for atm encapsulation
B. On STS1-3, the second E1 channelgroup in the fourth VTG uses onlythe first 24 timeslots
C. On STS1 -3, the second DS1 channel group i n the fourth TUG-2 is set for 32 timeslots
D. On STS1-3, the second VT2 in the fourth TUG-2 is set for atm encapsulation

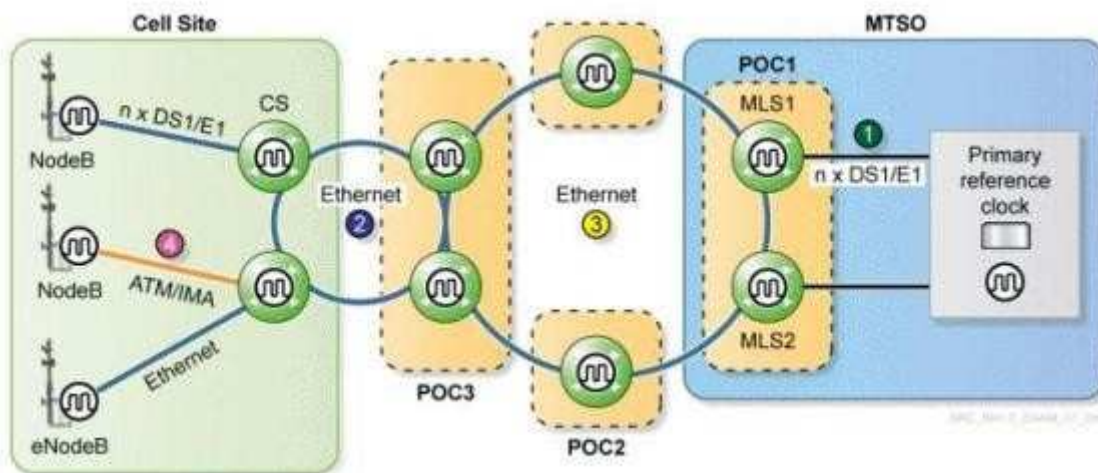**Correct Answer:** A
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 149
Click on the exhibit.

Given the topology shown:
Which timing solution would deliver time of day information to the NodeB connected lo the ATM/IMA link labeled 4 in the diagram?

A. TDM Line Timing
B. Adaptive clock recovery (ACR)
C. Synchronous Ethernet
D. Global Positioning System (GPS)

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:

QUESTION 150
Click on the exhibit.

```
A:MLS2# show multilink-bundle bundle-ppp-1/2.1 detail

==========================================================================
Bundle bundle-ppp-1/2.1 Detail
==========================================================================
Description          : MultiLink Bundle
Bundle Id            : bundle-ppp-1/2.1   Type              : mlppp
Admin Status         : up                 Oper Status       : down
Minimum Links        : 1                  Bundle IfIndex    : 574619649
Total Links          : 3                  Active Links      : 2
Red Diff Delay       : 0                  Yellow Diff Delay : 0
Red Diff Delay Act   : none               MRRU              : 1524
Short Sequence       : true               Oper MRRU         : 1524
Oper MTU             : 1602               Fragment Threshold : 128 bytes
Up Time              : N/A                Bandwidth         : 0 KBit
PPP Input Discards   : 0                  Primary Member Port: 1/2/1.1.1.1.1
Mode                 : access
Interleave-Frag      : false
--------------------------------------------------------------------------
Member Port Id          #TS  Admin Oper Act Down Reason    Up Time
--------------------------------------------------------------------------
1/2/1.1.1.1.1           31   up    up   yes N/A            0d 00:09:57
1/2/1.1.1.2.1           31   up    up   yes N/A            0d 00:09:57
1/2/1.1.1.3.1           31   up    up   no  under negotiation N/A

==========================================================================
... output truncated
```

Which condition would cause the bundle Oper Status: shown?

A. The bundle local and remote peer endpoint discriminators are mismatched
B. The bundle remote peer Layer 3 (L3) interface is down
C. The local and remote bundle MRRU values are mismatched
D. The ML-PPP bundle member links have dropped below the minimum threshold

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation: