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Huawei H35-260

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QUESTION NO: 1

Which of the following statements about the slave subrack SCC function is correct?

A. Status management of boards from subracks

B. DCN message forwarding

C. Protection switching protocol processing of this subrack

D. Handling of Overhead

ANSWER: A B D

Explanation:

In a multi-subrack Huawei transmission NE, the slave subrack SCC provides local control and communication functions for the boards installed in its own subrack. Therefore, *Status management of boards from subracks* is a slave SCC responsibility: it collects board status and alarm-related information and supports reporting that information to the NE-level management function. *DCN message forwarding* is also correct because the SCC participates in forwarding management communications between the relevant internal communication paths and the network-management direction. *Handling of Overhead* is correct as well. The SCC processes and relays the applicable SDH/OTN overhead communication information required for supervisory and management communication, including the communication channels used by the equipment control architecture. These functions allow a subordinate subrack to remain manageable and to communicate with the master-control side while maintaining local awareness of its installed boards. Huawei's optical-transmission documentation and support resources describe the equipment-control and maintenance architecture used across optical transmission products; see the Huawei Enterprise Support portal. The role of transport-network overhead in supervisory communication is also consistent with the overhead framework specified by ITU-T G.709.

QUESTION NO: 2

What are the items of routing protocols based on link state algorithm?

A. OSPF

B. BGP

C. ISIS

D. RIP

ANSWER: A C

Explanation:

OSPF and ISIS are link-state interior gateway protocols. Each router running either protocol builds a view of the network topology from link-state information exchanged with neighboring routers. That information is maintained in a link-state database, which represents routers, links, and their associated metrics within the relevant routing domain. Every router then independently runs the Shortest Path First calculation, commonly called the SPF or Dijkstra algorithm, against this database to determine the best paths and install corresponding routes in its routing table. This approach provides rapid, topology-aware convergence and supports hierarchical network design. In OSPF, the topology database and SPF calculation are defined in the OSPF specification, including the distribution of link-state advertisements and route calculation process. See RFC 2328: OSPF Version 2. ISIS likewise distributes link-state information and calculates shortest paths from a synchronized link-state database; its IP-routing behavior is specified in RFC 1195: Use of OSI IS-IS for Routing in TCP/IP and Dual Environments. Therefore, OSPF and ISIS are the routing protocols in the list that use the link-state algorithm.

QUESTION NO: 3

Which of the following response modes is usually used when diagnosing unidirectional tunnel connectivity in a PTN network?

A. No response

B. IPV4/UDP reply

C. Application Control Channel

D. TCP channel

ANSWER: A

Explanation:

No response is the appropriate mode for diagnosing a unidirectional tunnel because the diagnostic packet can be transmitted along the tunnel's forward direction without depending on a usable return path. A unidirectional transport tunnel, by definition, may not have an associated reverse tunnel or any return connectivity that can carry a reply back to the originating node. Selecting no response therefore allows the continuity test to focus on whether the packet reaches the downstream end of the specified forwarding path. The receiving node can process the diagnostic message and use local OAM indications, packet capture, counters, or performance/defect information to confirm its arrival, while the test itself does not fail merely because a reply cannot be delivered upstream. This behavior is standardized for MPLS LSP ping: the "Do not reply" reply mode is specifically intended for situations where return-path connectivity cannot be assumed, including unidirectional LSPs. Huawei PTN tunnel OAM follows this same practical principle when testing one-way service or transport paths. See the reply-mode definition in RFC 4379, section 3.3 and the updated MPLS fault-management framework in RFC 8029.

QUESTION NO: 4

The loss of optical fiber mainly includes the following?

A. Absorption loss

B. Reflection Loss

C. Bending loss

D. Scatter loss

ANSWER: A C D

Explanation:

Optical-fiber attenuation is principally produced by absorption, scattering, and bending. Absorption loss occurs when optical energy is converted to heat within the glass. It includes intrinsic material absorption and absorption caused by impurities, particularly residual hydroxyl ions and transition-metal contaminants. Scatter loss results from microscopic refractive-index and density variations in the fiber core; Rayleigh scattering is the dominant scattering mechanism in conventional silica telecommunications fiber and is wavelength dependent. Bending loss occurs when a fiber is curved too tightly. Macrobends can radiate guided light out of the core, while microbends cause small distortions that couple guided light into lossy modes. These mechanisms determine the attenuation coefficient specified for a fiber and must be considered in optical power-budget design, fiber routing, and installation practice. The International Telecommunication Union's G.652 standard describes attenuation requirements for standard single-mode optical fiber, while the Fiber Optics Association provides a practical overview of attenuation mechanisms and wavelength behavior. See ITU-T Recommendation G.652 and The Fiber Optic Association: Optical Fiber Basics.

QUESTION NO: 5

Which of the following functions are provided by the ODUk PM overhead in OTN?

A. BIP-8 bit-error monitoring

B. BEI/BIAE backward error reporting

C. BDI backward defect indication

D. FAS frame alignment

ANSWER: A B C

Explanation:

The ODUk path-monitoring overhead provides several end-to-end ODUk supervision functions. **BIP-8** is used for bit-error monitoring on the ODUk connection. **BEI/BIAE** provides backward error and backward incoming-alignment-error reporting toward the transmitting end. **BDI** is used to report a backward defect indication when the downstream equipment detects a defect affecting the monitored connection. FAS is not part of the ODUk PM overhead; it is an OTUk framing field used to establish OTUk frame alignment. These OTN overhead functions are specified in ITU-T Recommendation G.709.

QUESTION NO: 6

The DCN red copper feature between network elements of PTN, which VLAN number is used by default for DCN self-communication between network elements.

A. 1024

B. 2048

C. 4094

D. 4096

ANSWER: C

Explanation:

4094 is the default VLAN ID used for DCN self-communication over the PTN red-copper connection between network elements. In this application, the DCN provides the management-communication path used by network elements for functions such as topology discovery, alarm and performance-management reporting, and communication with network-management systems. The red-copper/DCN feature logically separates this management traffic from service traffic by applying the predefined DCN VLAN. Using VLAN 4094 as the default ensures that adjacent PTN network elements can establish DCN connectivity without first requiring a custom VLAN plan on the physical interconnection. During commissioning, engineers should preserve this default value unless the network design explicitly requires a different DCN VLAN and the corresponding configuration is changed consistently on all connected devices. VLAN 4094 is within the IEEE 802.1Q usable VLAN-ID range, which spans 1 through 4094; it is therefore a valid tag for this dedicated communication purpose. Huawei product documentation and technical resources can be located through the Huawei Enterprise Support search for PTN DCN VLAN 4094. The applicable VLAN tagging framework is defined by IEEE 802.1Q.

QUESTION NO: 7

Which of the following protections are protected by electrical layer double transmission and selective reception?

A. Client side 1+1 protection

B. ODUK SNCP Protection

C. SW SNCP Protection

D. ODUK ring network protection

ANSWER: B C

Explanation:

ODUK SNCP Protection and **SW SNCP Protection** use the electrical-layer protection principle of dual transmission with selective reception. In this model, the working and protection copies of a service are bridged at the source onto two independent ODUk-level paths. The receiving end continuously monitors the two received signal copies and selects the one with acceptable quality. Because both copies are transmitted concurrently, protection does not depend on first notifying the source and then waiting for it to switch traffic; this supports rapid restoration when a path or its associated transport resources fail.

For ODUk SNCP, the protected entity is the ODUk path, so the ODUk payload is carried simultaneously over a working path and a protection path. SW SNCP applies the same concurrent-transmission and sink-selection behavior for sub-wavelength service protection in Huawei OTN equipment. This is consistent with the general ODUk shared-protection architecture and operation defined by ITU-T for optical transport networks. Huawei's optical transport portfolio implements electrical-layer OTN protection capabilities based on these transport-layer mechanisms. See ITU-T G.873.1: ODUk shared protection ring and Huawei Optical Transmission products.

QUESTION NO: 8

Which of the following reasons may cause bit errors in the business?

A. The dispersion compensation is unreasonable, such as under-compensation or over-compensation

B. The optical power of the incoming fiber is too high or too low

C. The performance of the transmitting laser of the OTU board at the originating end deteriorates

D. The pigtail connector is seriously polluted

E. OSC board failure

ANSWER: A B C D

Explanation:

Unreasonable dispersion compensation, including either residual under-compensation or over-compensation, can leave excessive chromatic-dispersion impairment at the receiver. This broadens optical pulses and causes intersymbol interference, degrading the receiver's bit-error performance. Optical power that is too low reduces the received signal-to-noise ratio, while excessive input power can overload optical components or receivers and introduce nonlinear transmission effects; either condition can raise the bit-error rate. Deterioration of an originating-end OTU transmitting laser, such as reduced output power, degraded extinction ratio, wavelength instability, or increased noise, directly degrades the quality of the transmitted optical signal and can therefore cause service bit errors. A seriously contaminated pigtail connector produces insertion loss, reflection, and unstable optical coupling. These effects reduce the available power margin and can create signal-quality fluctuations that appear as bit errors. These mechanisms are consistent with optical-interface engineering requirements and impairment considerations for amplified WDM transmission systems described in ITU-T G.698.2 and Huawei's Optical Transmission product support resources.

QUESTION NO: 9

Which of the following services can be processed by MP1 processing board?

A. ML-PPP

B. Ethernet

C. CES E1

D. IMA E1

ANSWER: A C D

Explanation:

The MP1 processing board supports the listed legacy and packet-adaptation service functions: ML-PPP, CES E1, and IMA E1. ML-PPP is used to bundle multiple PPP links into a logical higher-bandwidth connection, which is a service adaptation function handled by the board. CES E1 is supported for circuit emulation, allowing E1 tributary traffic to be transported across the packet-oriented transport domain while retaining the required circuit characteristics. IMA E1 is also supported, allowing multiple E1 links to be inverse-multiplexed as an ATM access bundle. These capabilities reflect the MP1 board's role in aggregating and adapting E1/ATM-oriented access services for transport through the optical network. Huawei's optical-transmission product documentation and support portal provide the applicable board descriptions, service-processing capabilities, and version-specific documentation; always verify the exact capability against the equipment release and board manual in use. See the Huawei Enterprise Support Documentation portal and Huawei's Optical Transmission product information.

QUESTION NO: 10

The multi-level connection monitoring mode (TCM) of OTN has three application forms. Which of the following is correct?

A. Cascading mode

B. Overlapping Mode

C. Nested Mode

D. Cascade Mode

ANSWER: A B C

Explanation:

OTN Tandem Connection Monitoring supports multi-level monitoring by placing TCM functions at different levels of an optical transport path. The three recognized application forms are cascading mode, overlapping mode, and nested mode. Cascading mode applies successive monitoring segments along a connection, allowing responsibility and performance monitoring to be handed from one transport-domain segment to the next. Overlapping mode permits monitoring domains to partially share the same monitored path, which is useful when different operational entities need visibility over intersecting portions of an OTN connection. Nested mode places one monitored connection within another, enabling hierarchical monitoring across wider and more specific transport domains. These arrangements allow operators and interconnected carrier domains to supervise performance and defects at the appropriate administrative boundaries while preserving end-to-end OTN monitoring capability. The TCM concept and its placement within the OTN digital hierarchy are standardized in the ITU-T OTN interfaces recommendation, ITU-T G.709. Huawei's optical networking overview also describes OTN as a transport technology designed for carrier-grade, end-to-end operational visibility and management: Huawei Optical Networking.

QUESTION NO: 11

IEEE 802.1Q defines the structure of VLAN tags, including TPID, PRI, CR, and VLAN I

D. Which of the following is used to classify servicepriorities?

A. VLAN ID

B. CR

C. PRI

D. Which of the following is used to classify servicepriorities?
TPID

ANSWER: C

Explanation:

PRI is used to classify service priorities in an IEEE 802.1Q VLAN tag. This field is the three-bit Priority Code Point, commonly called PCP or 802.1p priority. A switch can use its eight possible values, from 0 through 7, to identify the relative priority of an Ethernet frame and apply Quality of Service handling such as queue selection, scheduling, congestion management, and preferential forwarding. This allows delay- or loss-sensitive traffic, including voice and video, to be handled differently from ordinary best-effort traffic while retaining the VLAN identification information in the same tag.

The 802.1Q tag-control information contains the priority value together with fields used for drop eligibility and VLAN identification. In Huawei switching and transmission networking contexts, the PRI/PCP value is therefore the Layer 2 marking that QoS policies inspect or trust when classifying traffic into service classes. The IEEE 802.1 Working Group identifies IEEE 802.1Q as the standard covering bridges and bridged networks, including VLAN tagging and priority handling: IEEE 802.1Q standard information. Huawei documentation also describes QoS classification and traffic behavior on its enterprise network products: Huawei enterprise documentation.

QUESTION NO: 12

To create a unicast BFD session between two IP addresses in a PIN network, which of the following must be satisfied?

A. IP address routing is reachable

B. The message sending interval of both parties is the same

C. The remote identifier of the local end matches the local identifier of the remote end

D. IP addresses at both ends must be in the same network segment

ANSWER: A C

Explanation:

A unicast BFD session requires IP-layer reachability between the two configured endpoints. BFD control packets are sent as IP/UDP packets, so the device must have a usable route to the peer address; the peers do not need to reside on the same directly connected IP subnet. Once BFD control packets are exchanged, each system identifies its own session using a local discriminator (identifier). The peer records that value as its remote discriminator. Accordingly, the remote identifier held by one endpoint must correspond to the local identifier advertised by its peer. This discriminator exchange lets each device associate received BFD packets with the intended session, including when several BFD sessions exist. The configured transmit intervals do not have to be identical: BFD peers advertise their desired timing values and calculate the effective control-packet transmission and detection behavior through negotiation. These requirements follow the BFD base protocol's definitions of IP/UDP packet transport and local/remote discriminators. See IETF RFC 5880: Bidirectional Forwarding Detection and Huawei's BFD Configuration Guide documentation.

QUESTION NO: 13

Which of the following descriptions about the daily maintenance SOP is wrong?

A. PTN cartridges are recommended to be backed up at least once a week

B. PTN box device requires daily database backup

C. Hardware alarms should be cleared in time

D. PTN7900 requires cleaning the dust filter once a year

ANSWER: D

Explanation:

PTN7900 requires cleaning the dust filter once a year is the incorrect daily-maintenance SOP description. The PTN 7900's air-intake and filtering components protect its fans, boards, and heat-dissipation path from dust accumulation. Because transmission equipment normally operates continuously, dust can build up much faster than an annual interval would allow, especially in central-office, equipment-room, or less controlled environments. Routine preventive maintenance

therefore requires the dust filter to be inspected and cleaned at a substantially shorter periodic interval, commonly every three months, with more frequent cleaning when the operating environment is dusty. Keeping the filter clean maintains adequate airflow and helps prevent elevated temperatures, fan-related alarms, and avoidable service risks. The stated annual schedule is consequently unsuitable as the required maintenance frequency. Huawei product documentation and maintenance materials for the OptiX PTN family are available through the Huawei Enterprise Support portal; Huawei's optical transmission product information is also available at Huawei Optical Transmission.

QUESTION NO: 14

OptiX OSN8800 provides 8 kinds of DCM optical modules, corresponding to compensation distances of 10km, 20km, 40km, 60km, 80km, 100km, 120km and 140km

respectively

A. True

B. False

ANSWER: B

Explanation:

False is correct. For the OptiX OSN 8800, the standard fixed dispersion-compensation-module family comprises eight nominal compensation lengths: 20 km, 40 km, 60 km, 80 km, 100 km, 120 km, 140 km, and 160 km. The nominal lengths describe the approximate accumulated chromatic dispersion of standard single-mode fiber that each module is designed to compensate. Consequently, the stated sequence is not the OSN 8800 eight-module set: it includes a 10 km value and omits the 160 km value. Correct DCM selection must also be based on the actual link's accumulated dispersion, fiber type, operating wavelength band, and the engineering residual-dispersion target, rather than on span length alone. This is important because dispersion compensation is an optical-link design function and affects the available system margin and transmission performance. Huawei identifies the OptiX OSN 8800 as an optical transport platform; its product documentation and related engineering materials should be used to verify supported board and optical-module configurations for the applicable release. See Huawei's optical transmission product information and the ITU-T's G.671 optical-component specification for relevant optical-component context.

QUESTION NO: 15

Which of the following measures are appropriate before replacing a faulty optical service board?

A. Check active alarms and affected services

B. Verify that the replacement board is compatible with the NE

C. Back up or record the board configuration before replacement

D. Remove the board immediately without checking service protection status

ANSWER: A B C

Explanation:

Before replacing an optical service board, engineers should identify the alarms and service impact, confirm that the replacement board is the correct supported type and version, and back up or record the relevant board and service configuration. If the board carries live services, the protection status and maintenance procedure must also be checked before removal. Removing a board without assessing its carried services can interrupt traffic, and installing an incompatible board can prevent the NE from operating normally. These activities follow standard carrier maintenance principles of fault isolation, configuration preservation, compatibility verification, and controlled service restoration. Huawei product-specific replacement procedures are available through the Huawei Enterprise Support portal.

QUESTION NO: 16

When the bridge is using ML learning mode, create an entry in the MAC.Address gateway depending on the source MAC map and server port. This entry applies to all VANs

A. True

B. False

ANSWER: A

Explanation:

True is correct. The statement describes shared VLAN learning, commonly called SVL. In this learning model, the bridge learns a source MAC address together with the ingress/receiving port, rather than creating an independent learned identity for that MAC address in each VLAN. The resulting learned MAC-address-table entry is shared by the VLANs that use the shared learning context. Consequently, once the bridge has learned the source MAC address on a particular port, that forwarding knowledge can be used when handling frames in any applicable VLAN. This avoids duplicating the same MAC-to-port association across multiple VLANs and is the defining behavior of shared VLAN learning. Huawei switching documentation describes MAC address learning as the process by which a device records the source MAC address and inbound interface in its MAC address table; VLAN learning mode determines whether that learned information is maintained separately by VLAN or shared. The all-VLAN applicability stated in the question is therefore consistent with shared VLAN learning. See Huawei's Enterprise Documentation portal and the Huawei product documentation portal for switching MAC-address learning and forwarding references.

QUESTION NO: 17

Which of the following alarms will be reported by the peer end when it is detected that the error code exceeds the limit in the B2 byte?

A. MS-AIS

B. RS-BBE

C. MS-REI

D. MS-BBE

ANSWER: C

Explanation:

MS-REI is correct because the B2 byte is the multiplex-section bit-interleaved parity monitoring field in an SDH frame. The receiving network element evaluates B2 to detect errors that occurred over the multiplex section. When the detected error count reaches the applicable reporting threshold, the receiver communicates the detected error information back toward the transmitting, peer-end network element using the multiplex-section remote error indication mechanism. Consequently, the peer end reports an MS-REI condition/alarm, indicating that its far-end receiver detected multiplex-section errors. This feedback allows operations personnel to localize performance degradation to the relevant section and investigate the optical path, interfaces, or transmission equipment involved. The relationship between B2 monitoring and the multiplex-section remote error indication is defined by the SDH frame and multiplex-section overhead specifications. Huawei transmission documentation uses these standard SDH overhead mechanisms when describing section-layer alarm and performance monitoring behavior. See the ITU-T SDH multiplex-section overhead specification in ITU-T Recommendation G.707 and Huawei's optical network documentation portal at Huawei Optical Networking Support.

QUESTION NO: 18

The activation operation is successful in the PTN network element upgrade operation. Which of the following states is the network element in?

A. to be stabilized

B. Normal state

C. Pending distribution

D. to be activated

ANSWER: A

Explanation:

The correct state is **to be stabilized**. In the PTN network-element upgrade workflow, successful activation means that the downloaded upgrade package has been switched into service and the network element has restarted or begun operating with the newly activated software. Activation is therefore not the end of the controlled upgrade process: the element must next remain under observation for a stabilization period. During this phase, the operator or network-management system verifies that the device starts correctly, communication is restored, boards and services are healthy, alarms are acceptable, and the new version operates reliably. Once this verification and stabilization step is completed successfully, the upgrade workflow can transition the network element to its normal state. This intermediate status is important operationally because it distinguishes a newly activated version that still requires post-activation validation from one that has completed the full upgrade procedure. Huawei's enterprise support portal provides product documentation and maintenance resources for transmission-network equipment at Huawei Enterprise Support. Huawei's transmission product information and related solution resources are available at Huawei Enterprise Networking.

QUESTION NO: 19

Which of the following queue scheduling mechanisms can ensure the priority of the most urgent and critical services?

A. RFO

B. PQ

C. WFQ

D. BE

ANSWER: B

Explanation:

PQ (Priority Queuing) ensures that the most urgent and critical services receive priority because it places traffic into queues based on configured priority classes and always schedules packets from the highest-priority nonempty queue first. This strict-priority behavior is particularly appropriate for delay-sensitive services, such as voice and critical control traffic, where low delay and low jitter are essential. As long as packets are present in the priority queue, they are transmitted ahead of packets assigned to lower-priority queues. In Huawei QoS implementations, strict-priority scheduling is commonly used to protect high-priority real-time traffic, while bandwidth controls or shaping may be applied in a complete policy to prevent such traffic from consuming excessive bandwidth. Huawei describes queue scheduling and priority-based forwarding in its QoS documentation: Huawei Queue Scheduling documentation. The general strict-priority queuing principle is also described in RFC 3246, which defines expedited forwarding behavior for traffic requiring preferential treatment.

QUESTION NO: 20

Which of the following statements about optical line protection OLP is wrong?

A. The OLP board is used to protect the powder fiber

B. Segmentation protects the combined optical signal, and separate routing is used between sites

C. Single-ended switching optical line protection requires APS protocol

D. oLpz can only be fitted on the RU line side of each site

ANSWER: C D

Explanation:

“Single-ended switching optical line protection requires APS protocol” is wrong because single-ended OLP switching is made locally by the receiving-end equipment according to locally detected optical-power conditions. It does not need Automatic Protection Switching (APS) coordination with the remote end. APS signaling is relevant when a protection arrangement requires coordinated switching at both ends, such as dual-ended operation. “OLPZ can only be fitted on the RU line side of each site” is also wrong because OLPZ board deployment is determined by the applicable Huawei product model, subrack/slot specifications, and the selected OLP topology; it is not an unconditional rule that limits the board to the RU line side at every site. Correct deployment must follow the relevant equipment documentation and engineering design, including optical-port routing and whether protection is implemented at one end or in a coordinated arrangement. Huawei’s optical transport portfolio supports configurable protection schemes intended to maintain service continuity after fiber or optical-line faults. See Huawei’s Optical Transmission product information and the Huawei Enterprise Support documentation portal for product-specific OLP board installation and protection-configuration documentation.

QUESTION NO: 21

Which of the following services can be handled by the MP1 processing board?

A. CES E1

B. IMAE1

C. ML-PPP

D. Ethernet

ANSWER: A B C D

Explanation:

The MP1 is a packet-service processing board that provides access and adaptation functions for both traditional TDM/ATM-oriented traffic and packet-based traffic. Its supported service set includes CES E1, allowing E1 circuits to be carried across a packet transport network while preserving the circuit-oriented service characteristics. It also supports IMA E1, which inverse-multiplexes multiple E1 links for ATM access, and ML-PPP, which bundles multiple PPP links to provide a larger logical bandwidth connection. In addition, Ethernet is a native packet service handled by the board, enabling Ethernet traffic access and transport. Therefore, CES E1, IMAE1, ML-PPP, and Ethernet are all services that can be handled by the MP1 processing board. Huawei’s optical transport documentation describes packet service boards as providing Ethernet and legacy-service adaptation capabilities, while Huawei’s support portal provides the relevant board manuals and product documentation: Huawei Enterprise Support and Huawei Optical Transmission products.

QUESTION NO: 22

Which technology can provide synchronization support in TD-SCDMA network?

A. ACR/TOP

B. Ethernet Physical Layer Synchronization

C. IEEE 1588V2

D. SDH

ANSWER: C

Explanation:

IEEE 1588V2 is correct because TD-SCDMA requires precise network timing, including phase/time synchronization, to maintain aligned radio-frame operation and coordinated base-station transmission. IEEE 1588 version 2, commonly called

Precision Time Protocol, distributes highly accurate time and phase information across packet networks. It uses timestamped synchronization messages exchanged between a grandmaster clock and slave devices; a boundary clock or transparent clock can improve accuracy across intermediate network equipment. This makes it suitable where the transport network is Ethernet/IP based and synchronization must be delivered to radio access equipment without relying solely on a traditional circuit-based timing path. In mobile transport deployments, IEEE 1588V2 is therefore used as a packet-based synchronization method that can support the stringent timing needs associated with TD-SCDMA radio networks. The standard defines the protocol mechanisms for precise clock synchronization in networked measurement and control systems, while mobile-industry synchronization guidance describes the use of packet timing and phase synchronization for radio access networks. See the IEEE 1588 standard overview and the ITU-T G.8275.1 telecom profile for PTP timing distribution.

QUESTION NO: 23

A certain wavelength division system is configured with the 1st to 20th waves, using the NS4 single board, and testing the M40 output port with a spectrum analyzer during commissioning. It is found that the optical power of the 20th waveis significantly lower than the other 19th waves. What is the possible reason? ?

A. The luminescence of the 20th wave on the LU WDM side is too small

B. 20th wave LU center wavelength shift

C. The insertion loss of the 20th channel corresponding to M40 is too large

D. The RX error of the 20th wave of NS4 added 5DB fixed light attenuation

ANSWER: A B C

Explanation:

The low power of the 20th wavelength at the M40 output can result from a reduced launch power on the LU WDM-side interface for that wavelength. Since the individual wavelength is already weak before or while entering the multiplexing path, the spectrum analyzer will show a correspondingly low level at the combined M40 output. A center-wavelength shift of the 20th LU signal is also a possible cause: DWDM multiplexing channels have defined passbands, so a signal that drifts away from its assigned channel center can experience attenuation through the relevant filter path. In addition, excessive insertion loss in the M40 channel path corresponding to the 20th wavelength directly reduces only that channel's output power, while the remaining multiplexed wavelengths can remain normal. These are all channel-specific causes consistent with a single low spectral component at the multiplexed output. DWDM channel spacing and nominal frequency allocation are defined by ITU-T G.694.1, which underpins the need for wavelength alignment with optical filtering: ITU-T G.694.1. Huawei's optical-network product resources also describe its WDM transport portfolio and associated wavelength-division transmission context: Huawei Optical Network.

QUESTION NO: 24

When TCAT adds points, it recalculates the Tunnel and distributes the configuration. Which of the following information is being modified?

A. The name of the Tunnel

B. Tunnel jump information

C. Tunnel the sink node of

D. The source node of the tunnel

ANSWER: B

Explanation:

Tunnel jump information is being modified. In this context, adding a point requires TCAT to recalculate the tunnel path and then distribute the resulting configuration to the relevant network elements. The recalculation determines the sequence of

intermediate nodes or hops through which the tunnel must pass. This sequence is the tunnel's jump, or hop, information. Updating it ensures that forwarding and cross-connect resources are configured consistently along the newly calculated end-to-end route.

The tunnel name is an administrative identifier and does not define the calculated path. Likewise, the source and sink nodes define the tunnel's endpoints; when a point is added to an existing tunnel, TCAT's path computation changes the route between those endpoints rather than changing the endpoints themselves. This aligns with traffic-engineering tunnel behavior: a path calculation produces explicit route information identifying the nodes and links to traverse, which is then installed as tunnel configuration. See the RSVP-TE explicit-route definition in RFC 3209 and Huawei's product documentation resources at Huawei Enterprise Support Documentation.

QUESTION NO: 25

In the PTNLTE solution, which source interface is used when deploying multi-hop daily BFD at the core L3 nodes in the prefecture and city?

A. L3VE sub-interface

B. Link Aggregation Port

C. LOOPBACK port

D. City L3 node interconnection interface

ANSWER: C

Explanation:

LOOPBACK port is the appropriate source interface for multihop BFD between core Layer 3 nodes. Multihop BFD monitors reachability to a remote peer across one or more routed hops rather than monitoring the state of one directly connected physical link. A loopback interface supplies a stable, logical endpoint whose address does not depend on the operational status of a particular physical interface. This lets the BFD session continue to represent end-to-end IP reachability as traffic is rerouted across available paths, which is particularly important for core nodes in a PTN-LTE transport design. The loopback address is normally routable throughout the network and remains available provided that the node itself and a valid route to it are available. Huawei VRP BFD configuration guidance distinguishes single-hop BFD from multihop BFD and uses explicitly configured local and remote IP endpoints for multihop sessions; using a loopback address as the local source is the standard resilient design. It also provides a consistent endpoint for upper-layer protocols and fast fault detection independent of any individual interconnection interface. See Huawei's VRP configuration documentation and the Huawei BFD technical overview.

QUESTION NO: 26

Which of the following are the possible causes of PW failures in the network?

A. When using LDP to create a PW, if the LDP session fails, the PW creation fails

B. Physical link failure

C. The Tunnel that hosts the PW itself has a communication problem

D. When a PW is created in static mode, the IS-IS exchange route fails, resulting in unsuccessful PW creation

ANSWER: A B C

Explanation:

When using LDP to create a PW, if the LDP session fails, the PW creation fails because LDP is responsible for exchanging the PW label mappings and associated signaling information between the provider-edge devices. Without an operational targeted LDP session and successful label exchange, an LDP-signaled pseudowire cannot be established. Physical link failure is also a direct potential cause because it can interrupt the forwarding path, disconnect a provider-edge device from

the MPLS transport network, or cause the underlying routing and label-distribution adjacencies to go down. The Tunnel that hosts the PW itself has a communication problem is likewise a valid cause: a PW depends on its selected transport tunnel, such as an MPLS LSP or TE tunnel, to carry encapsulated traffic between endpoints. If that tunnel is unavailable, fails its continuity checks, or loses reachability, the PW service can become unavailable even where the PW configuration remains present. Huawei's MPLS VPN and pseudowire implementation relies on healthy forwarding connectivity and, for dynamically signaled services, functioning label-distribution signaling. See Huawei's MPLS Configuration Guide and MPLS Troubleshooting Guide for MPLS/PW configuration and fault-isolation guidance.

QUESTION NO: 27

Which of the following statements about multiplexed partial range error indication (MS-REI) is true

? B2 byte represents the transmission channel.

? M1 byte folder indicates the transmission channel

? MS-REI is sent from the receiver to the source.

? MS-REI is transmitted from source to receiver

? Indicates the number of bit errors detected by the receiver after receiving the MS signal.

A. ???

B. ???

C. ???

D. MS-REI is sent from the receiver to the source.

ANSWER: D

Explanation:

MS-REI is sent from the receiver to the source. In SDH multiplex-section monitoring, the receiving network element checks the incoming multiplex-section signal using the B2 bit-interleaved parity monitoring mechanism. It then reports the detected error information back toward the originating network element in the reverse direction. This remote indication allows the source-side equipment to learn the quality observed at the far end of the monitored multiplex section, rather than merely the quality measured locally.

The MS-REI information is carried in the M1 overhead byte and represents the error count associated with the received multiplex-section signal. Its reverse-direction transmission is essential because the receiving end is the point that performs the B2 comparison and therefore knows how many errors were detected. This behavior supports fault localization and performance monitoring across an SDH multiplex section. The SDH overhead-byte assignments and multiplex-section performance-monitoring functions are specified in ITU-T G.707; see the ITU-T G.707 recommendation. Huawei transmission products implement these standard SDH section-overhead monitoring mechanisms for alarm, error, and performance management.

QUESTION NO: 28

In Optix PTN, what kind of MPLS Tunnel APS protection is supported?

A. 1+1 single-ended protection

B. 1+1 double-ended protection

C. 1:1 single-ended protection

D. 1:1 double-ended protection

ANSWER: A B D

Explanation:

OptiX PTN MPLS Tunnel APS supports **1+1 single-ended protection**, **1+1 double-ended protection**, and **1:1 double-ended protection**. These mechanisms protect MPLS-TP tunnel traffic by establishing working and protection tunnel resources and using APS control to coordinate selection or switching when a defect occurs. In a 1+1 configuration, traffic is transmitted over both the working and protection paths, allowing the receiving side to select the valid signal. The single-ended form permits local receive-side selection, while the double-ended form uses coordinated APS behavior at both tunnel ends. The 1:1 double-ended mode provides coordinated protection switching between the working and protection tunnel paths, with the protection resource available for the protected service according to the configured APS operation. These supported modes allow PTN deployments to select protection behavior appropriate to service availability requirements and the desired degree of endpoint coordination. Huawei's product-support documentation is available through the Huawei Enterprise Support portal; MPLS-TP protection architecture and APS concepts are standardized in ITU-T Recommendation G.8131.

QUESTION NO: 29

Which of the following LSRs are passed by an LSP?

A. Ingress

B. Lable

C. Transit

D. Egress

ANSWER: A C D

Explanation:

An LSP (Label Switched Path) is the unidirectional forwarding path established through an MPLS domain. It includes the **Ingress** LSR, where packets enter the MPLS domain and are classified and assigned an initial MPLS label. It also includes one or more **Transit** LSRs when the path crosses intermediate MPLS routers. Each transit LSR forwards the packet according to its incoming label and performs the label operation specified by its forwarding entry, commonly label swapping. Finally, the LSP includes the **Egress** LSR, where the packet leaves the MPLS domain and MPLS label processing is completed before conventional IP forwarding continues, if needed. Therefore, an end-to-end LSP is described in terms of its ingress, transit, and egress LSR roles. This model is fundamental to MPLS forwarding and applies whether the LSP is signaled by a control-plane protocol or provisioned by another supported mechanism. RFC 3031 defines MPLS architecture and the roles of label switching routers along a labeled path: IETF RFC 3031. Huawei's enterprise support portal provides MPLS product documentation and configuration references consistent with this forwarding model: Huawei Enterprise Support.

QUESTION NO: 30

[True or False]

Since the CWDM system does not use optical amplifiers, the focus of commissioning is whether the optical reception of the OTU board is reasonable.

A. True

B. False

ANSWER: A

Explanation:

True is correct. A CWDM system is generally deployed without optical amplifiers because its relatively wide channel spacing and intended transmission distances make passive multiplexing/demultiplexing practical. Consequently, attenuation from fiber spans, connectors, splices, optical distribution frames, and the CWDM MUX/DEMUX directly determines the optical

power arriving at each OTU receiver. During commissioning, technicians therefore need to verify that the received optical power reported by the OTU is within the board's specified receiver range, with adequate margin above receiver sensitivity and below overload level. This check confirms that the wavelength path has acceptable loss and that the service can operate reliably without amplifier gain to compensate for excessive attenuation. It is also important to compare measured values with the optical-power budget established for the link and to confirm stable alarm-free reception after service activation. CWDM wavelength allocation and channel characteristics are standardized in ITU-T G.694.2, while Huawei's optical transport portfolio describes the role of wavelength-based transport equipment in carrying optical services. See ITU-T G.694.2 and Huawei Optical Network.

QUESTION NO: 31

Which of the following is the destination MAC address of the Layer 2 header of the data received by the PTN960 from the LTE base station?

A. The user-side port MAC of the PTN device connected to the base station

B. The network port MAC of the PTN device connected to the base station

C. The MAC of the base station gateway L3VE on the L2/L3 node.

D. The port MAC of the EPC device connected to the core L3PTN

ANSWER: C

Explanation:

The correct destination is **"The MAC of the base station gateway L3VE on the L2/L3 node."** In an LTE backhaul deployment, the PTN960 receives an Ethernet frame from the base station on its access-facing interface. The base station is sending traffic towards a remote IP destination, so at the Ethernet layer it addresses the frame to its configured local IP next hop: the base-station gateway implemented by the L3VE on the L2/L3 node. Before transmission, the base station uses ARP to associate that gateway IP address with the gateway's MAC address, then places the resolved MAC address in the destination field of the received Ethernet header. The L3VE acts as the Layer 3 forwarding boundary for this traffic and routes the packet onward through the PTN transport and toward the relevant mobile-core destination. This follows the standard IP-over-Ethernet next-hop model: hosts send frames to the MAC address of the directly reachable router when the IP destination is outside the local subnet. ARP behavior for resolving a local next-hop IP address to a hardware address is defined in RFC 826, while router forwarding behavior is described in RFC 1812.

QUESTION NO: 32

A certain wavelength division system is configured with the 1st to 20th waves, using the NS4 single board, and testing the M40 output port with a spectrum analyzer during commissioning. It is found that the optical power of the 20th wave

is significantly lower than the other 19th waves. What is the possible reason? ?

A. The luminescence of the 20th wave on the LU WDM side is too small

B. 20th wave LU center wavelength shift

C. The insertion loss of the 20th channel corresponding to M40 is too large

D. The RX error of the 20th wave of NS4 added 5DB fixed light attenuation

ANSWER: A B C

Explanation:

A low reading for only the 20th wavelength at the M40 output can result from reduced launch power at its LU WDM-side transmitter, because that channel enters the multiplexing path at a lower optical level than the other wavelengths. It can also result from a center-wavelength shift of the 20th LU signal. DWDM multiplexers use narrow channel passbands aligned to the applicable frequency grid; if the transmitter drifts away from the nominal channel center, the M40 filter passes less of that

signal, reducing the measured output power. Finally, excessive insertion loss in the M40's 20th-channel path directly attenuates that wavelength while leaving the other channel paths largely unaffected. These are all channel-specific causes that fit a spectrum-analyzer observation in which one wavelength is substantially below the remaining wavelengths. The ITU-T DWDM frequency-grid specification describes the nominal channel alignment that enables wavelength-selective components to operate correctly: ITU-T G.694.1. Huawei's optical-network product documentation and support resources also cover optical power and wavelength troubleshooting for WDM equipment: Huawei Optical Networking Support.

QUESTION NO: 33

Which of the following statements is incorrect about the optical layer interfaces OTM-nm and OTM-nrm of OTN?

A. n represents the number of wavelengths carried by the maximum capacity,

B. m represents the rate. Value can be 1.2 or 3.

C. r means OTM without OSC function

D. OTM-nr.m with OSC signal is OTM-nm.

ANSWER: B

Explanation:

m represents the rate. Value can be 1.2 or 3. is the incorrect statement. In the OTN optical-transport-module interface naming convention, *m* identifies the nominal bit-rate class of each optical channel, but "1.2" and "3" are not the defined values expressed by this nomenclature. The standardized rate designations include values such as 1.25, 2.5, 10, 40, 100, 200, 300, and higher values as specified in the applicable version of the recommendation. The decimal precision matters: a 1.25-rate class cannot be stated as 1.2, and 3 is not a standard replacement for the defined 2.5-rate class. This notation enables equipment designers and operators to identify both the wavelength-carrying capability and the per-wavelength line-rate class consistently across OTN systems. The ITU-T G.709 recommendation defines the OTN architecture, interfaces, and related transport-network terminology, including the optical interface framework used for OTM designations. See ITU-T Recommendation G.709 and the ITU-T Recommendation G.872 optical transport network architecture.

QUESTION NO: 34

Which of the following descriptions about network protection switching test is wrong?

A. Before testing, you need to set the 1:1 linear multiplex section protection mode to single-ended switching.

B. During the protection switching of the linear multiplex section, the NE reports the APS_INDI and MS_APS_INDI_EX alarms

C. SNCP protection is configured. When the laser of the interface connected to the opposite end is turned off, observe the SDH analyzer of the local end.

D. There are two methods for testing the protection switching of the multiplex section: the single-ended loopback test method and the double-ended hanging metertest method

ANSWER: A

Explanation:

Before testing, you need to set the 1:1 linear multiplex section protection mode to single-ended switching. is the wrong description. A 1:1 SDH multiplex-section protection test is normally performed with coordinated, two-ended (bidirectional) switching. This ensures that the two network elements exchange APS signaling and make a consistent protection decision, so the working and protection paths are switched in a synchronized manner at both ends of the protected section. This coordinated behavior is essential when validating the actual service-protection capability of a 1:1 multiplex-section protection group, including APS communication and end-to-end traffic continuity. Setting the group to single-ended switching instead permits a local switching action without requiring corresponding switching at the far end. That mode does not represent the normal coordinated 1:1 MSP protection-switching behavior that the test is intended to verify.

The distinction follows the SDH multiplex-section protection architecture and APS procedures defined in ITU-T G.841. Huawei optical-transport maintenance documentation is available through the Huawei Enterprise Support portal for the specific NE and software release in use.

References: ITU-T Recommendation G.841: Types and characteristics of SDH network protection architectures; Huawei Enterprise Support.

QUESTION NO: 35

Which of the following statements about Ethernet Link Aggregation are correct?

A. Multiple physical links can be combined into one logical link

B. Failure of one active member link can be tolerated if other members remain available

C. Traffic can be distributed among member links

D. Each Ethernet frame must be copied to every member link

ANSWER: A B C

Explanation:

Link Aggregation combines multiple physical Ethernet links into one logical link, increasing available bandwidth and providing resilience against the failure of an individual member link. Traffic is distributed among active member links by a hash or load-balancing algorithm, while frames belonging to the same flow are normally kept on one member link to preserve frame order. All traffic is not necessarily replicated over every member link; replication is a protection behavior rather than the normal forwarding method of link aggregation. Link Aggregation Control Protocol behavior is specified in IEEE 802.1AX, and related bridged-network information is maintained by the IEEE 802.1 Link Aggregation Working Group.

QUESTION NO: 36

Which items are correct about the description of Huawei's PTN6900 E-Trunk?

A. The higher the priority value of the E-Trunk, the higher the priority.

B. The active and standby devices periodically send Hello packets to each other

C. The ID of the E-Trunk is used to identify an E-Trunk

D. Able to achieve link aggregation across devices

ANSWER: B C D

Explanation:

The active and standby devices periodically send Hello packets to each other because E-Trunk is a device-level link aggregation protection mechanism. The two member devices use E-Trunk control and Hello messages over the peer-link to maintain their active/standby relationship and detect peer status. This coordination ensures that the active device can forward traffic normally and that the standby device can assume the required role if an active-device fault is detected.

The ID of the E-Trunk is used to identify an E-Trunk because both devices participating in the same E-Trunk must be configured with the same E-Trunk ID. This common identifier associates the peer devices as one logical E-Trunk protection group.

Able to achieve link aggregation across devices is correct because E-Trunk extends link aggregation beyond a single physical device. It allows downstream equipment to form an aggregation group whose member links terminate on two separate upstream devices, improving device-level reliability while retaining aggregated-link connectivity. Huawei’s E-Trunk feature documentation describes this dual-device aggregation and active/standby coordination model. See Huawei’s enterprise documentation portal and the Huawei HedEx documentation portal for E-Trunk configuration and protocol references.

QUESTION NO: 37

The 1510 nm optical monitoring channel can be effectively amplified after passing through the EDFA.

A. True

B. False

ANSWER: B

Explanation:

False is correct because a conventional C-band erbium-doped fiber amplifier (EDFA) is designed to provide useful gain principally across the C-band optical-amplifier operating range, rather than at 1510 nm. The 1510 nm wavelength is used as an optical supervisory or monitoring channel precisely because it can be separated from the main amplified WDM traffic band. At this wavelength, the EDFA's gain is insufficient for effective amplification, and the monitoring signal should therefore be engineered with its insertion loss and receiver sensitivity in mind rather than relying on the line EDFA to restore its power level. This separation also helps avoid the supervisory channel interacting with amplified traffic channels and enables reliable monitoring of the optical line system. Optical-interface wavelength bands and application codes are standardized in ITU-T G.692, while the characteristics and application-related considerations for optical amplifiers are addressed by ITU-T G.662. These standards provide the wavelength-plan context for distinguishing supervisory functions from the normal EDFA-amplified transmission band. See ITU-T G.662 and ITU-T G.692.

QUESTION NO: 38

Which one of the following is not necessary to establish a GE-level service path on the network management?

A. Complete OSC path

B. Complete ODU1 Path

C. Complete OMS Path

D. Complete OCH Path

ANSWER: A

Explanation:

Complete OSC path is not necessary for establishing a GE-level service path. An OSC is an optical supervisory channel used to carry management and control communications between optical network elements. It supports functions such as monitoring, alarms, configuration access, and data communication-network connectivity, but it is not part of the client service payload trail. Therefore, an OSC can be operationally useful for managing equipment remotely without being a transport-layer prerequisite for the actual GE service connection.

A GE service is carried through the applicable OTN digital-wrapper and optical transport layers. The network-management system creates the service by provisioning the relevant client-to-OTN mapping, transport container connectivity, and optical-channel resources. Those service-bearing resources provide the end-to-end capacity and wavelength transport needed by the GE payload. The supervisory channel remains logically separate from that payload transport: its role is to help operate and supervise the network rather than to convey the customer GE traffic itself. This separation between supervisory communications and the optical transport service is consistent with the architecture described in ITU-T G.872 and the OTN framing and transport concepts in ITU-T G.709.

QUESTION NO: 39

During the troubleshooting process, if you need to loopback the protected services carried by the NG WDM device, which of the following operations need to be performed first when performing the loopback

operation?

A. Switch to the protection channel

B. Lock on the current channel

C. Test to see if the ring is normal

D. Verify that the APS protocol is enabled

ANSWER: B

Explanation:

Lock on the current channel must be performed before loopback testing a protected service. A loopback deliberately changes the signal condition seen by the equipment, so it can resemble a service fault or a protection-switch trigger. Locking the channel holds traffic on the currently selected working path and prevents automatic protection behavior from changing the active channel while the test is in progress. This gives the engineer a stable, known traffic path for inserting and removing the loopback, observing alarms, and interpreting test results. It also prevents an unintended protection action from obscuring the result of the loopback or moving traffic away from the interface being tested. After the loopback test is complete and normal signal conditions have been restored, the lock can be cleared so that the configured protection mechanism can again operate normally. This procedure is consistent with the operational purpose of protection switching: protection controls must be managed during maintenance activities that intentionally affect transport signals. The relevant protection-switching principles are described in ITU-T Recommendation G.873.1; Huawei's optical transport portfolio and related operational documentation are available through Huawei Optical Networking.

QUESTION NO: 40

Which of the following items belong to the debugging work of the playback system?

A. Commissioning the protection function

B. Commissioning feature function

C. Debugging Errors

D. Optical power commissioning

E. Cabinet Installation

ANSWER: A B C D

Explanation:

Commissioning the protection function, commissioning feature function, debugging errors, and optical power commissioning are all integral parts of transmission-system commissioning and troubleshooting. Protection commissioning verifies that protection mechanisms can detect a fault and perform the intended switching or recovery action, preserving service continuity. Feature-function commissioning verifies that configured system capabilities and service-related functions operate as designed after equipment installation and configuration. Debugging errors is a necessary commissioning activity because alarms, configuration inconsistencies, cabling issues, and service-affecting faults must be identified, isolated, and cleared before the system is accepted for operation. Optical power commissioning confirms that optical transmit and receive levels are within the equipment's supported range and that the fiber link has an adequate power budget; this is essential to stable optical-channel performance. Together, these activities validate both the physical optical layer and the transmission equipment's operational functions, protection behavior, and fault-free service readiness. Huawei's optical transmission portfolio and related technical support resources describe the operational context for optical transport equipment and commissioning activities: Huawei Optical Transmission and Huawei Enterprise Support.

QUESTION NO: 41

A company has a class C IP address segment 198.160.110.0/24. The company has 6 departments, each department is located in a different subnet, and the number of hosts in each subnetis the same as 25-30. Which of the following can be used as the subnet mask to reasonably plan the P address space?

A. 255.255.255.0

B. 255.255.255.128

C. 255.255.255.192

D. 255.255.255.224

ANSWER: D

Explanation:

255.255.255.224 is the appropriate mask because it is a /27 prefix. Starting with the 198.160.110.0/24 network, using /27 borrows three bits from the original host portion for subnetting. This produces 2^3, or eight, equal-sized subnets, which is sufficient for the company's six departments. A /27 leaves five host bits in each subnet, providing $2^5 = 32$ total addresses per subnet. After reserving the all-zero host address as the subnet/network address and the all-one host address as the broadcast address, each department has 30 usable host addresses. That precisely accommodates a requirement of approximately 25 to 30 hosts while also preserving address-space efficiency. The resulting /27 subnet boundaries increment by 32 in the final octet, such as 198.160.110.0/27, 198.160.110.32/27, and 198.160.110.64/27. This is standard CIDR subnetting behavior: the prefix identifies the network bits, while the remaining bits identify addresses within each subnet. See RFC 4632: Classless Inter-domain Routing and Huawei's IP Addressing and Subnetting documentation for CIDR and subnet-planning concepts.

QUESTION NO: 42

OSN6800 equipment, ND2, TQX report the BUS_ERROR alarm after configuring the power cross-connect, what are the possible reasons?

A. The crossover board, TQX board or ND2 board is faulty

B. The TQX client side business type is set incorrectly

C. Subrack Hardware Limitations

D. Cross bus capacity is limited

ANSWER: A C D

Explanation:

The applicable causes are "The crossover board, TQX board or ND2 board is faulty," "Subrack Hardware Limitations," and "Cross bus capacity is limited." A power cross-connect requires the relevant service boards and switching/cross-connect resources to communicate correctly through the subrack backplane and cross-bus. Consequently, a fault affecting the crossover board or either participating board can prevent the required bus communication from completing and result in a BUS_ERROR alarm. The configuration also depends on the physical capabilities of the particular OSN 6800 subrack. Hardware constraints, including supported board combinations, slot relationships, and available switching architecture, can restrict whether the requested cross-connect can be established. Finally, cross-bus resources are finite. When the configured service consumes more cross-bus capacity than is available, the equipment cannot allocate the required path and may report BUS_ERROR after the power cross-connect is configured. These checks should therefore be performed together: verify board health and versions, confirm that the installed subrack supports the board arrangement and service, and check available cross-bus capacity before reapplying the configuration. Huawei's optical-transmission portfolio information is available at Huawei Optical Transmission, and product support resources can be accessed through Huawei Enterprise Support.