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Exam Code: H19-315

Exam Name: HCSA-Presales-Transmission & Access

Exam A

QUESTION 1
OLT EA5800 uses distributed architecture to provide super high performance switching.

A. True
B. False

Correct Answer: A
Section:
Explanation:
The statement isTrue. TheHuawei EA5800 OLTemploys adistributed architectureto deliver superior performance and scalability. In a distributed architecture, processing tasks are divided among multiple components, reducing bottlenecks and improving overall system efficiency. This design allows the EA5800 to handle high-density subscriber traffic with low latency and high reliability, making it ideal for carrier-grade deployments.
Key benefits of the distributed architecture include:
High Performance Switching:Supports large-scale data forwarding with minimal delay.
Scalability:Easily accommodates additional subscribers and services.
Redundancy:Enhances fault tolerance and network availability.
Huawei EA5800 OLT Product Documentation
Huawei GPON Technology White Paper

QUESTION 2
Which of the following services can FTTH Solution provide?

A. Home-WiFi
B. IPTV
C. High-Speed Internet
D. Telephone

Correct Answer: A, B, C, D
Section:
Explanation:
The correct answer includes all options:Home-WiFi, IPTV, High-Speed Internet, and Telephone. FTTH (Fiber-to-the-Home) solutions are designed to deliver a wide range of services over a single fiber connection, leveraging the high bandwidth and low latency of optical networks.
Home-WiFi:Provides wireless internet access within the home using Wi-Fi routers connected to the ONU.
IPTV:Delivers high-quality video streaming services, including live TV, Video on Demand (VoD), and interactive features.
High-Speed Internet:Offers broadband connectivity for web browsing, online gaming, andother data-intensive applications.
Telephone:Supports Voice over IP (VoIP) services, enabling voice communication over the fiber network.
FTTH is a converged solution that integrates these services into a unified platform, simplifying network management and enhancing user experience.
Huawei FTTH Solution White Paper
ITU-T G.984.x Standards for GPON

QUESTION 3
Huawei EA5800 OLT platform supports software upgrade function for network protection.

A. True
B. False

Correct Answer: A
Section:
Explanation:
The statement isTrue. TheHuawei EA5800 OLTplatform supportssoftware upgrades, which are critical for ensuringnetwork protectionand maintaining optimal performance. Software upgrades allow the OLT to incorporate new features, improve security, fix bugs, and enhance compatibility with emerging technologies.
Key aspects of software upgrades on the EA5800 include:
Security Enhancements:Regular updates patch vulnerabilities, protecting the network from cyber threats like DDoS attacks, unauthorized access, and malware.
Feature Expansion:New functionalities can be added to support evolving use cases, such as 5G backhaul, IoT integration, and advanced QoS (Quality of Service) mechanisms.
Performance Optimization:Upgrades often include improvements to system efficiency, reducing latency and increasing throughput.
Compliance:Ensures adherence to industry standards and regulatory requirements, such as ITU-T G.984.x for GPON and ITU-T G.988 for OMCI (ONT Management and Control Interface).
The ability to perform seamless software upgrades is a hallmark of Huawei's commitment to future-proofing its solutions, ensuring that networks remain robust and adaptable over time.
Huawei EA5800 OLT Product Documentation
ITU-T G.984.x and G.988 Standards for PON

QUESTION 4
OptiXtrans E9624 maximum cross-connect capacity is 2.4T per subrack.

A. True
B. False

Correct Answer: B
Section:
Explanation:
TheOptiXtrans E9624is a high-end optical transport platform designed for core networks. Itsmaximum cross-connect capacity is 24 Tbps per subrack, not 2.4 Tbps as stated in the question. This makes it one of the most powerful systems in Huawei's optical transport portfolio, capable of handling massive traffic volumes in backbone and metro-core networks.
The confusion may arise from other models in the series, such as the OptiXtrans E9605, which has a lower capacity. However, the E9624 is specifically engineered for ultra-high-capacity scenarios.
Huawei OptiXtrans E9624 Product Datasheet
Huawei Optical Transport Network Solution Guide

QUESTION 5
Which of the following scenarios can OSN 9800 be used in?

A. ISP
B. Safe City
C. Campus
D. Electrical Grid
E. Railway

Correct Answer: A, B, D, E
Section:
Explanation:
TheOSN 9800series is a versatile optical transport platform designed for high-capacity and long-haul networks. It is widely used in the following scenarios:
ISP (Internet Service Provider):Provides backbone connectivity for large-scale data centers and internet services.
Safe City:Supports video surveillance and backhaul applications for public safety.
Electrical Grid:Enables reliable communication for smart grid operations, including power distribution and monitoring.
Railway:Facilitates mission-critical communications for railway signaling, control, and passenger services.
While the OSN 9800 can technically support campus networks, it is more commonly deployed in scenarios requiring high bandwidth and long-distance transmission, making it less typical for campus environments.
Huawei OSN 9800 Series Product Documentation
Huawei Optical Transport Network Solution Guide

QUESTION 6
Which of the following features can monitor fiber status and fast locate fault points?

A. Service Doctor
B. Wavelength Doctor
C. Optical Doctor
D. Fiber Doctor

Correct Answer: D
Section:
Explanation:
TheFiber Doctorfeature is specifically designed to monitor the status of optical fibers and quickly locate fault points in the network. It uses advanced diagnostics and AI-driven analytics to:
Detect issues such as fiber breaks, attenuation, and connector faults.
Provide precise fault location information, reducing troubleshooting time and field visits.
Ensure high reliability and availability of the optical network.
Other options like 'Service Doctor' and 'Optical Doctor' focus on higher-layer services or optical performance but do not specialize in fiber-level diagnostics.
Huawei NCE-FAN Product Documentation
Huawei Optical Network Monitoring Best Practices

QUESTION 7
Which of the following products are recommended for Campus OptiX (POL) safe city scene?

A. Indoor monitoring ONT, such as P612E, EA5821
B. Pre-connection ODN
C. Outdoor monitoring ONT, such as EG8084P, PowerCube500
D. Small and medium OLT, such as EA5801, EA5800-X2

Correct Answer: C
Section:
Explanation:
In asafe city scenario, outdoor monitoring is a critical requirement. Huawei recommends usingoutdoor monitoring ONTslike theEG8084PandPowerCube500for such deployments. These devices are ruggedized and designed to operate in harsh environmental conditions, making them ideal for outdoor surveillance applications.
While indoor monitoring ONTs and pre-connection ODN are useful in other scenarios, they are not specifically optimized for outdoor safe city deployments. Similarly, small and medium OLTs like the EA5801 and EA5800-X2 are suitable for smaller-scale networks but are not directly related to the safe city use case.
Huawei Safe City Solution Guide
Campus OptiX (POL) Deployment Scenarios

QUESTION 8
Which of the following are the main sale products in the Campus OptiX solution?

A. OLT + ODN + ONU + eSight
B. OLT + ODN + ONU
C. OLT + ODN + ONU + U2000
D. OLT + ONT

Correct Answer: A
Section:
Explanation:

TheCampus OptiX solutionis a comprehensive offering that integrates multiple components to deliver a complete Passive Optical LAN (POL) solution. The main sale products include:
OLT (Optical Line Terminal):Central device for managing the network.
ODN (Optical Distribution Network):Passive infrastructure for signal distribution.
ONU/ONT (Optical Network Unit/Terminal):Customer-side devices for connecting end-users.
eSight:Huawei's network management system (NMS) for centralized monitoring and management of the entire network.
While options like 'OLT + ODN + ONU' or 'OLT + ONT' represent subsets of the solution, the inclusion ofeSightis critical for effective network management and operation, making option A the most complete and accurate choice.
Huawei Campus OptiX Solution Guide
eSight Product Documentation

QUESTION 9
Which of the following definitions about POL is correct?

A. Passive Optical LAN, is the application of PON technology in the enterprise campus environment
B. Procurement on Line, Purchasing Online System
C. Port of Loading, the loading port where goods are initially shipped
D. Point of Load

Correct Answer: A
Section:
Explanation:
POL (Passive Optical LAN)refers to the application of Passive Optical Network (PON) technology in enterprise campus environments. It is a modern networking solution that replaces traditional copper-based Ethernet networks with fiber optics, offering higher bandwidth, longer reach, and lower maintenance costs. POL is widely used in scenarios such as education, healthcare, hospitality, and smart cities.
The other options---Procurement on Line, Port of Loading, and Point of Load---are unrelated to optical networking and refer to entirely different concepts.
ITU-T G.984 Standard - PON Technology
Huawei Campus OptiX Solution Guide

QUESTION 10
How many OLT models are there in Huawei's OLT family?

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

Correct Answer: D
Section:
Explanation:
Huawei offers a diverse range of Optical Line Terminal (OLT) models to cater to various network requirements. As of the latest product portfolio, Huawei's OLT family includesfive primary models:
MA5800 Series:High-density OLT for large-scale deployments (e.g., MA5800-X17,MA5800-X7).
EA5800 Series:Compact OLT for small and medium-sized networks (e.g., EA5800-X2).
OptiXstar Series:Specialized OLT for enterprise and campus networks.
SmartAX Series:Integrated OLT for multi-service access.
OSN Series:Advanced OLT for converged transport and access networks.
Each model is designed to address specific use cases, from large-scale service provider networks to small enterprise deployments.
Huawei OLT Product Portfolio
Huawei Transmission & Access Solution Guide

QUESTION 11
Which of the following are the values that Campus OptiX (POL) brings to customers?

A. Simple architecture
B. Smart O&M
C. Easy to evolve
D. High reliability

Correct Answer: A, B, C, D
Section:
Explanation:
Campus OptiX (POL) delivers significant value to customers through the following key benefits:
Simple Architecture:POL simplifies network design by using a single fiber infrastructure to deliver multiple services (voice, data, video), reducing complexity and cost.
Smart O&M:With centralized management tools like eSight, POL enables efficient monitoring, troubleshooting, and automation of network operations.
Easy to Evolve:POL supports future-proof technologies like XG-PON and NG-PON2, allowing seamless upgrades to higher bandwidths.
High Reliability:The passive nature of POL (no active components in the ODN) ensures high reliability and low maintenance requirements.
These advantages make POL an attractive solution for enterprise campuses and other large-scale deployments.
Huawei Campus OptiX Solution Guide
POL Deployment Best Practices

QUESTION 12
Which of the following are the main sale scenarios of the Campus OptiX (POL)?

A. Room-like scenarios, including education, hotel, medical, apartment
B. All office scenarios, including wired and wireless access
C. Wi-Fi backhaul scenarios, including wireless campus, wireless office, wireless hotel
D. Video backhaul scenarios, including Safe city, park monitoring

Correct Answer: A, D
Section:
Explanation:
TheCampus OptiX (POL)solution is primarily deployed in scenarios where fiber-to-the-premises (FTTP) is required for high-speed connectivity. The main sale scenarios include:
Room-like Scenarios:POL is widely used in education (classrooms, dormitories), hotels (guest rooms), hospitals (patient rooms), and apartments, where individual units require dedicated connectivity.
Video Backhaul Scenarios:POL supports video surveillance and backhaul applications in safe city projects, parks, and industrial zones, ensuring reliable and high-quality video transmission.
While POL can technically support office and Wi-Fi backhaul scenarios, these are not its primary focus. Instead, these scenarios are better addressed by other Huawei solutions like Wi-Fi 6 or enterprise switches.
Huawei Campus OptiX Solution Guide
POL Deployment Scenarios

QUESTION 13
eSight is the NMS in Huawei Campus OptiX solution.

A. True
B. False

Correct Answer: A
Section:
Explanation:
eSightis Huawei's flagship Network Management System (NMS) and plays a critical role in theCampus OptiX solution. It provides centralized management, monitoring, and operation of the entire POL network, including OLTs,

ONTs, and the ODN infrastructure. Key features of eSight include:
Real-time monitoring of network performance and faults.
Automated service provisioning and configuration.
Comprehensive reporting and analytics for network optimization.
Without eSight, managing a large-scale POL deployment would be significantly more challenging, making it an essential component of the solution.
Huawei eSight Product Documentation
Campus OptiX Solution Guide

QUESTION 14
What is the minimum protection switching time of Link-layer Type B Switching?

A. 1 min
B. 3 s
C. 3 min
D. 50 ms

Correct Answer: D
Section:
Explanation:
Type B Protectionin GPON networks refers to link-layer redundancy, where two independent fiber paths are used to connect an ONU to the OLT. In the event of a fiber failure, the system automatically switches to the backup path.
Theminimum protection switching timefor Type B protection is50 ms, ensuring minimal disruption to services. This rapid switching time is critical for maintaining high availability and reliability in mission-critical applications.
ITU-T G.984 Standard - GPON Protection Mechanisms
Huawei GPON Technical Documentation

QUESTION 15
Huawei, as an industry leader, has the No. 1 ITU patent contribution.

A. True
B. False

Correct Answer: A
Section:
Explanation:
Huawei is a global leader in telecommunications and networking technologies, and it has consistently rankedNo. 1 in ITU patent contributions. The International Telecommunication Union (ITU) is a specialized agency of the United Nations responsible for standardizing global telecommunications technologies. Huawei's significant contributions to ITU standards, particularly in areas like 5G, optical transport, and PON technologies, reflect its commitment to innovation and leadership in the industry.
These contributions not only demonstrate Huawei's technical expertise but also ensure that its products are aligned with the latest global standards, providing customers with cutting-edge solutions.
ITU Patent Contribution Reports
Huawei Annual Innovation Report

QUESTION 16
EG8040F4 is an ONT product with 4 Gigabit Ethernet interfaces.

A. True
B. False

Correct Answer: A
Section:

Explanation:
TheEG8040F4is a Huawei Optical Network Terminal (ONT) designed for Fiber-to-the-Home (FTTH) deployments. It featuresfour Gigabit Ethernet interfaces, making it suitable for high-speed internet access in residential and small office environments. These interfaces allow users to connect multiple devices, such as computers, smart TVs, and gaming consoles, to the network simultaneously.
In addition to Gigabit Ethernet ports, the EG8040F4 may also include other features like Wi-Fi support, VoIP ports, and USB connectivity, depending on the specific model.
Huawei EG8040F4 Product Datasheet
Huawei FTTH Solution Guide

QUESTION 17
What is the downstream bitrate of the GPON standard?

A. 1 Gbps
B. 10 Gbps
C. 2.5 Gbps
D. 2 Gbps

Correct Answer: C
Section:
Explanation:
TheGPON (Gigabit Passive Optical Network)standard, defined by the ITU-T G.984 specification, supports asymmetric data rates for upstream and downstream traffic. Specifically:
Downstream Bitrate:2.5 Gbps
Upstream Bitrate:1.25 Gbps
The higher downstream bitrate reflects the typical usage pattern of internet services, where users consume more data (e.g., streaming videos) than they upload. GPON uses Time Division Multiplexing (TDM) to manage data transmission between the OLT and multiple ONUs.
For higher bandwidth requirements, advanced standards like XG-PON (10 Gbps downstream) or NG-PON2 (multi-wavelength support) are available.
ITU-T G.984 Standard - GPON Architecture
Huawei GPON Technical Documentation

QUESTION 18
In remote areas, which of the following solutions are proposed to achieve economic network deployment?

A. Flex-PON
B. Outdoor Site Cabinet for OLT
C. Combo PON
D. Class D Optical Module

Correct Answer: B, D
Section:
Explanation:
Deploying networks inremote areaspresents unique challenges, such as limited infrastructure, harsh environmental conditions, and high costs. To address these challenges, Huawei proposes the following solutions:
Outdoor Site Cabinet for OLT:Compact and ruggedized cabinets house the OLT and associated equipment, enabling deployment in outdoor environments without the need for dedicated indoor spaces.
Class D Optical Module:These modules are designed for long-distance transmission (up to 20 km), making them ideal for connecting remote areas to the central OLT.
WhileFlex-PONandCombo PONare innovative technologies, they are more focused on optimizing network capacity and efficiency rather than addressing the specific challenges of remote deployments.
Huawei Remote Area Deployment Guide
Huawei OLT Outdoor Cabinet Specifications

QUESTION 19
Which of the following optical modules are used in commercial cases currently?

A. Class D
B. Class C+
C. Class B+
D. Class F
E. Class E

Correct Answer: A, B, C
Section:
Explanation:
Optical modules are categorized based on their transmission distance and power budget. The most commonly used classes in commercial deployments are:
Class B+:Supports distances up to 20 km and is widely used in urban and suburban areas.
Class C+:Supports distances up to 40 km and is suitable for medium-range deployments.
Class D:Supports distances up to 60 km and is ideal for long-haul connections in remote areas.
ClassesEandFare either outdated or not commercially viable due to their limited use cases.
ITU-T G.984 Standard - Optical Module Specifications
Huawei Optical Module Product Guide

QUESTION 20
Which of the following services can FTTx Solution provide?

A. High-Speed Internet
B. Home-WiFi
C. Telephone
D. IPTV

Correct Answer: A, B, C, D
Section:
Explanation:
TheFTTx (Fiber-to-the-x)solution is a versatile technology that enables the delivery of multiple services over a single fiber-optic infrastructure. The key services provided by FTTx include:
High-Speed Internet:Delivers broadband connectivity to homes, businesses, and institutions.
Home-WiFi:Supports wireless networking within premises using Wi-Fi-enabled ONTs or routers.
Telephone:Provides Voice over IP (VoIP) services for telephony applications.
IPTV:Enables high-quality video streaming for entertainment and educational purposes.
FTTx solutions are widely used in Fiber-to-the-Home (FTTH), Fiber-to-the-Building (FTTB), and Fiber-to-the-Curb (FTTC) deployments, offering converged services to meet diverse customer needs.
Huawei FTTx Solution Guide
ITU-T G.984 Standard - FTTx Applications

QUESTION 21
EA5800-X2 is able to provide dual AC input interface.

A. True
B. False

Correct Answer: A
Section:
Explanation:
TheEA5800-X2is a compact Optical Line Terminal (OLT) designed for small and medium-sized networks. One of its key features is the support fordual AC input interfaces, which enhances power redundancy and reliability. This ensures uninterrupted operation even if one power source fails, making it suitable for critical network environments.

Dual AC input is particularly important in scenarios where high availability is required, such as enterprise campuses, hospitals, and remote areas.
Huawei EA5800-X2 Product Datasheet
Huawei OLT Deployment Guide

QUESTION 22
Which PON does Flex-PON support?

A. XGS-PON Combo
B. XGS-PON
C. GPON
D. XG-PON Combo
E. XG-PON

Correct Answer: A, B, C, E
Section:
Explanation:
TheFlex-PON boardsupports multiple PON technologies, including:
GPON:Gigabit Passive Optical Network, widely used for residential and small business applications.
XG-PON:10G Asymmetric Passive Optical Network, offering higher upstream and downstream bandwidths.
XGS-PON:10G Symmetric Passive Optical Network, providing equal upstream and downstream speeds.
Combo PON:Combines GPON and XG(S)-PON on the same port, enabling seamless upgrades from GPON to XG(S)-PON without replacing hardware.
The only option not supported by Flex-PON isXG-PON Combo, as 'Combo' typically refers to the integration of GPON and XG(S)-PON, not just XG-PON alone.
Huawei Flex-PON Technology White Paper
ITU-T G.984.x and G.988 Standards for PON

QUESTION 23
In which of the following slots can the control board be functioning for EA5800-X15?

A. 9
B. 7
C. 8
D. 10

Correct Answer: C
Section:
Explanation:
The correct answer isSlot 8. In theHuawei EA5800-X15 OLT, thecontrol boardis designed to be installed inSlot 8. The control board serves as the central processing unit of the OLT, managing system operations, traffic forwarding, and communication with other components.
Here's why Slot 8 is designated for the control board:
Centralized Location:Slot 8 is strategically positioned to ensure balanced power distribution and efficient heat dissipation, which are critical for maintaining system stability.
Redundancy Support:The EA5800-X15 supports dual control boards for high availability, with the second control board typically installed in Slot 7. This redundancy ensuresuninterrupted operation in case of a failure.
Compatibility:Only specific slots are compatible with control boards due to their unique hardware and connectivity requirements.
Slots 9 and 10 are typically reserved for service boards or uplink modules, while Slot 7 may house a secondary control board.
Huawei EA5800 OLT Hardware Guide
Huawei GPON Technology White Paper

QUESTION 24
OptiXtrans DC908 has 8 slots, each slot is 5U wide.

A. True
B. False

Correct Answer: B
Section:
Explanation:
The statement isFalse. TheOptiXtrans DC908does not have8 slots, nor are the slots5U wide. Instead, the DC908 is acompact 2U devicewith a fixed configuration, meaning it does not use modular slots like some other optical transport platforms.
Key characteristics of the DC908 include:
Fixed Configuration:The DC908 is designed as an all-in-one device, integrating optical modules, amplifiers, and control units into a single chassis.
Compact Design:Its2U heightand shallow depth (compatible with 600mm racks) make it ideal for space-constrained environments.
High Capacity:Despite its small size, the DC908 supports up to8Tbps per fiber pair, leveraging advanced technologies like 400G wavelengths.
The confusion may arise from other devices in the OptiXtrans series that use modular designs, but the DC908 itself is not slot-based.
Huawei OptiXtrans DC908 Product Documentation
ITU-T G.709 Standards for OTN

QUESTION 25
What is the maximum single-fiber capacity of OptiXtrans DC908?

A. 38.4T
B. 16T
C. 48T
D. 24T

Correct Answer: A
Section:
Explanation:
The correct answer is38.4T. TheOptiXtrans DC908supports a maximum single-fiber capacity of38.4 Tbps, making it one of the most advanced solutions for high-capacity optical transport.
Here's how the DC908 achieves this capacity:
WDM Technology:Combines multiple wavelengths on a single fiber, each carrying data at speeds up to400G.
Advanced Modulation:Uses modulation schemes like DP-16QAM to maximize spectral efficiency, enabling higher data rates within the same fiber spectrum.
High Density:Supports up to96 wavelengths per fiber, resulting in a total capacity of38.4 Tbps(96 x 400G).
Future-Proofing:Designed to accommodate emerging technologies like 800G wavelengths, ensuring scalability for future demands.
This level of capacity is critical for applications like data center interconnects, where large volumes of data need to be transmitted over long distances without bottlenecks.
Huawei OptiXtrans DC908 Product Documentation
ITU-T G.698 Standards for WDM

QUESTION 26
OptiXtrans DC908 is able to be managed by WebGUI.

A. True
B. False

Correct Answer: A
Section:
Explanation:
The statement isTrue. TheOptiXtrans DC908can be managed using aWebGUI (Web Graphical User Interface), providing a user-friendly way to configure, monitor, and troubleshoot the device.
Key features of the WebGUI include:

Ease of Use:The WebGUI offers an intuitive interface for operators, reducing the learning curve compared to command-line tools.
Centralized Management:Provides access to key functions like performance monitoring, fault detection, and service provisioning.
Remote Access:Enables administrators to manage the DC908 from any location with internet connectivity, improving operational efficiency.
Integration with NCE:While the WebGUI is available for standalone management, the DC908 also integrates seamlessly with Huawei'sNCE (Network Cloud Engine)for advanced automation and orchestration.
This flexibility in management options makes the DC908 suitable for both small-scale deployments and large-scale carrier networks.
Huawei OptiXtrans DC908 Product Documentation
Huawei NCE Product Documentation

QUESTION 27
What is the minimum number of chassis to deploy an 8x200G (2x100GE) WDM system with DC908?

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

Correct Answer: B
Section:
Explanation:
The correct answer is1. TheOptiXtrans DC908is designed to support high-density configurations, allowing an8x200G (2x100GE)WDM system to be deployed using justone chassis.
Here's a breakdown of how this is achieved:
High Integration:The DC908 integrates multiple components, such as optical modules, amplifiers, and control units, into a single compact2U chassis. This eliminates the need for additional hardware or external devices.
Scalability:The DC908 supports up to8 wavelengths per fiber pair, each operating at200G. This means that all 8x200G channels can be accommodated within a single device.
Service Aggregation:Each 200G wavelength can carry multiple 100GE services, enablingefficient aggregation of traffic. For example, two 100GE services can be mapped onto a single 200G wavelength.
Space Efficiency:By consolidating everything into one chassis, the DC908 minimizes rack space requirements, making it ideal for data centers and edge locations where space is limited.
Other options:
2, 3, or 4 chassis:These would only be necessary for extremely large-scale deployments or if additional redundancy were required. However, for an 8x200G system, a single chassis is sufficient.
This compact design highlights the DC908's efficiency and cost-effectiveness for modern optical networks.
Huawei OptiXtrans DC908 Product Documentation
ITU-T G.698 Standards for WDM

QUESTION 28
OptiXtrans DC908 product is usually used in backbone long-distance networks.

A. True
B. False

Correct Answer: A
Section:
Explanation:
The statement isTrue. TheOptiXtrans DC908is primarily designed forbackbone long-distance networks, where high capacity, low latency, and reliability are critical.
Here's why the DC908 is well-suited for backbone networks:
High Capacity:The DC908 supports up to38.4 Tbps per fiber pair, making it ideal for transporting massive volumes of data over long distances.
Long-Distance Transmission:Leveraging advanced technologies likeEDFA (Erbium-Doped Fiber Amplifier)andRaman amplification, the DC908 can transmit data over distances exceeding1,000 kmwithout regeneration.
Low Latency:Designed for ultra-low latency, the DC908 ensures minimal delay for mission-critical applications like cloud computing, AI, and big data analytics.
Reliability:Features likeoptical protection switchingandhard pipe isolationensure uninterrupted service even in the event of failures.
While the DC908 can also be used for shorter distances (e.g., metro or regional networks), its primary application is inlong-haul backbone networksthat connect major cities, data centers, and international gateways.
Huawei OptiXtrans DC908 Product Documentation
ITU-T G.698 Standards for WDM

QUESTION 29
Which of the following are the components for the FTTH network?

A. ONU/ONT
B. OLT
C. Splitter
D. NMS
E. ODF

Correct Answer: A, B, C, D, E
Section:
Explanation:
TheFTTH (Fiber-to-the-Home)network consists of several key components that work together todeliver high-speed connectivity to end-users:
ONU/ONT (Optical Network Unit/Terminal):Customer-side device that converts optical signals into electrical signals for end-user devices.
OLT (Optical Line Terminal):Central device located at the service provider's premises, managing communication with multiple ONUs.
Splitter:Passive optical device that divides the signal from the OLT into multiple paths for distribution to ONUs.
NMS (Network Management System):Software platform (e.g., eSight) for centralized monitoring and management of the FTTH network.
ODF (Optical Distribution Frame):Infrastructure component used for organizing and connecting optical fibers.
Each of these components plays a critical role in ensuring efficient and reliable FTTH deployments.
ITU-T G.984 Standard - FTTH Architecture
Huawei FTTH Solution Guide

QUESTION 30
Huawei, NOKIA, ZTE, FiberHome, and Cisco are the main vendors of OLT.

A. True
B. False

Correct Answer: B
Section:
Explanation:
The statement isFalse. While Huawei, NOKIA, ZTE, and FiberHome are indeed major vendors of Optical Line Terminals (OLTs),Ciscois not traditionally known as a primary OLT vendor. Cisco focuses more on enterprise networking solutions like routers, switches, and Wi-Fi systems rather than passive optical network (PON) equipment.
The leading OLT vendors in the market are:
Huawei:Dominates the global OLT market with advanced GPON, XG(S)-PON, and Combo PON solutions.
NOKIA:Offers robust PON solutions through its Alcatel-Lucent subsidiary.
ZTE:Provides cost-effective PON solutions for both carriers and enterprises.
FiberHome:Specializes in PON and fiber optic technologies.
Dell'Oro Group Market Reports on OLT Vendors
Huawei, NOKIA, ZTE, and FiberHome Product Portfolios

QUESTION 31
Which of the following product models is faceplate ONU?

A. EG8240P
B. EG8080P
C. EG8145V5
D. EG8020P

Correct Answer: B
Section:
Explanation:
The correct answer isEG8080P. Afaceplate ONUis a compact Optical Network Unit designed to be mounted on a wall or faceplate, typically used in Fiber-to-the-Room (FTTR) or Fiber-to-the-Desk (FTTD) scenarios. TheEG8080Pis specifically designed for such applications, providing high-speed internet, voice, and video services in a small form factor.
Other options:
EG8240P:A standard home gateway ONU, not a faceplate model.
EG8145V5:A residential gateway ONU, not suitable for faceplate mounting.
EG8020P:A business-class ONU, but not a faceplate model.
Huawei ONT/ONU Product Portfolio
Huawei FTTR Solution Documentation