

HUAWEI

Exam Questions H19-301_V3.0

HCSA-Presales-IP Network Certification V3.0



NEW QUESTION 1

Huawei datacom portfolio comprises "Four Engines" products + Integrated management, control, and analysis platform. Which one is not part of Huawei datacom "Four Engines"?

- A. NetEngine
- B. CloudEngine
- C. AREngine
- D. AirEngine

Answer: C

Explanation:

Huawei's datacom portfolio includes the "Four Engines" product families: NetEngine : Routers for wide-area networks. CloudEngine : Switches for data center networks. AirEngine : Wireless access points for Wi-Fi networks. HiSecEngine : Security products for comprehensive protection. AREngine is not part of the "Four Engines." It is unrelated to Huawei's datacom portfolio and focuses on augmented reality (AR) technologies. Thus, the correct answer is C . References: Huawei Datacom Portfolio Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 2

The address that functions at the data link layer is called an IP address. Each network adapter that complies with the IEEE 802 standard must have an IP address.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

The statement is incorrect because IP addresses function at the network layer (Layer 3) of the OSI model, not the data link layer (Layer 2). At the data link layer, devices use MAC addresses (Media Access Control addresses) to identify each other. MAC addresses are unique identifiers assigned to network adapters and are defined by the IEEE 802 standard. While IP addresses are essential for routing data across networks, they are not directly related to the data link layer. Therefore, the claim that "the address that functions at the data link layer is called an IP address" is false.

References:

HCSA-Presales-IP Network Study Guide, Section: "OSI Model and Addressing." IEEE 802 Standards Documentation.

NEW QUESTION 3

Which of the following Huawei products is best suited to defend against application-layer DDoS attacks?

- A. AntiDDoS
- B. FireHunter
- C. USG6000E
- D. HiSec Insight

Answer: A

Explanation:

Application-layer DDoS attacks target specific applications or services, such as HTTP floods or DNS amplification. Below is an analysis of each option:

AntiDDoS : This product is specifically designed to detect and mitigate DDoS attacks, including application-layer attacks. It provides real-time traffic analysis and automated mitigation capabilities.

FireHunter : This is a sandbox solution used for detecting advanced threats and malware. It is not designed to defend against DDoS attacks.

USG6000E : This is a next-generation firewall that provides basic DDoS protection but lacks the specialized capabilities of AntiDDoS for large-scale attacks.

HiSec Insight : This is a security analytics platform that provides visibility into threats and vulnerabilities. While it can help identify DDoS activity, it does not actively mitigate attacks. Thus, the correct answer is A , as AntiDDoS is the best-suited product for defending against application-layer DDoS attacks.

References:

Huawei AntiDDoS Solution Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 4

DCs can be classified based on the number of standard racks. Which type is a DC with 3000-10000 racks classified to?

- A. Ultra-large DC
- B. Small DC
- C. Large DC
- D. Midsize DC

Answer: A

Explanation:

Classification of Data Centers (DCs):

Data centers are classified into categories such as small, midsize, large, and ultra-large based on the number of standard racks they house.

Rack Classification Criteria: Small DC: Less than 500 racks. Midsize DC: 500-1000 racks. Large DC: 1000-3000 racks.

Ultra-large DC: 3000-10000 racks.

Conclusion: A data center with 3000-10000 racks falls under the ultra-large DC category. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 7: Data Center Solutions. Huawei Data Center Network Documentation.

NEW QUESTION 5

Huawei CloudEngine 8700 is the highest-density modular access switch in the industry. How many 10G ports can one unit of Huawei CloudEngine 8700-10 provide at maximum?

- A. 384
- B. 480
- C. 288
- D. 336

Answer: B

Explanation:

The CloudEngine 8700-10 is part of Huawei's high-density modular access switch lineup, designed for large-scale campus networks. It supports up to 480 10G ports in a single chassis, making it the highest-density modular access switch in the industry. This high port density enables organizations to consolidate their network infrastructure, reducing space and power requirements while supporting growing bandwidth demands.

References:

HCSA-Presales-IP Network Study Guide, Section: "Huawei Campus Switch Portfolio." Huawei CloudEngine 8700 Series Product Documentation, Port Density Specifications.

NEW QUESTION 6

What challenges do large numbers of branches bring to enterprise WAN interconnection?

- A. Difficulties in rectifying faults on branch networks
- B. Long time to provision new services in branches
- C. Poor experience with key applications
- D. High O&M costs

Answer: ABCD

Explanation:

Managing a large number of branches in an enterprise WAN environment presents several challenges. Below is an analysis of each option:

Difficulties in rectifying faults on branch networks : With numerous branches, identifying and resolving network faults becomes complex, especially when relying on manual troubleshooting.

Long time to provision new services in branches : Deploying new services across multiple branches requires significant coordination and configuration effort, leading to delays.

Poor experience with key applications : Limited bandwidth, high latency, and inefficient traffic steering can degrade the performance of critical applications like video conferencing and ERP systems.

High O&M costs : Managing distributed branch networks involves substantial operational and maintenance costs, including personnel, tools, and infrastructure expenses.

All four options accurately describe the challenges faced in enterprise WAN interconnection with large numbers of branches.

References:

Huawei SD-WAN Solution Challenges and Benefits, HCSA-Presales-IP Network Documentation.

NEW QUESTION 7

Which of the following statements are TRUE about Huawei's audio and video service experience assurance? (Select All that Apply)

- A. By default, scheduling is performed based on the priorities in descending order: VI -> VO -> BK -> BE.
- B. Beacon frames can be broadcast to instruct APs to suppress heavy-traffic users.
- C. According to Huawei lab test data, the delay of voice and video services in congestion scenarios is 56% lower than the industry average.
- D. By default, scheduling is performed based on the priorities in descending order: VI -> VO -> BE -> BK.
- E. Heavy-traffic services are automatically suppressed.

Answer: BCD

Explanation:

Overview of Audio and Video Service Assurance:

Huawei provides advanced mechanisms to ensure high-quality audio and video services in wireless networks, even under congestion.

Analysis of Each Statement:

Option A: This is incorrect. The correct default priority order is VI -> VO -> BE -> BK (Voice > Video > Best Effort > Background).

Option B: This is correct. Beacon frames can be used to instruct APs to suppress heavy-traffic users, ensuring fair resource allocation.

Option C: This is correct. Huawei's lab tests show that delays for voice and video services in congestion scenarios are 56% lower than the industry average.

Option D: This is correct. The default scheduling priority order is VI -> VO -> BE -> BK. Option E: This is incorrect. Heavy-traffic services are not automatically suppressed; suppression requires explicit configuration.

Conclusion: The correct statements are Options B, C, and D. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 8: WLAN Solutions.

Huawei AirEngine Product Documentation.

NEW QUESTION 8

What is the normal operating temperature of Huawei NetEngine 8000 M6 routers with DC power supply?

- A. 0°C to +45°C
- B. -20°C to +65°C
- C. -40°C to +65°C
- D. -20°C to +45°C

Answer: B

Explanation:

The Huawei NetEngine 8000 M6 series routers are designed for robust performance in various environmental conditions. For models with DC power supply, the normal operating temperature range is -20°C to +65°C.

Below is an explanation of the other options:

0°C to +45°C : This range is too narrow and does not reflect the router's actual capabilities.

-40°C to +65°C : This range applies to extreme environments and is typically associated with AC-powered models or specialized variants.

-20°C to +45°C : This range is incorrect for DC-powered models, as the upper limit is lower than the actual specification.

Thus, the correct answer is B , as the operating temperature for DC-powered NetEngine 8000 M6 routers is -20??C to +65??C .

References:

Huawei NetEngine 8000 M6 Series Router Product Documentation, HCSA-Presales-IP Network Documentation.

NEW QUESTION 9

Which of the following methods can be used to protect network security in Huawei WLAN products and solutions?

- A. WIDS/WIPS air interface attack defense
- B. Wired tunnel hardware encryption: DTLS and IPsec
- C. WPA3 encryption
- D. Authorization: Free mobility and unified authorization

Answer: ACD

Explanation:

Huawei WLAN solutions include multiple security mechanisms to protect wireless networks from threats:

A (WIDS/WIPS air interface attack defense): Wireless Intrusion Detection/Prevention System (WIDS/WIPS) detects and mitigates rogue APs and other air interface threats. C (WPA3 encryption): Latest Wi-Fi security standard providing stronger encryption and protection against brute-force attacks.

D (Authorization: Free mobility and unified authorization): Ensures that users maintain consistent access policies regardless of location, improving security and compliance. Reference: HCSA-Presales-IP Network Official Documentation – WLAN Security Features

NEW QUESTION 10

Which of the following deployment modes are supported by AR routers?

- A. USB-based deployment
- B. DCN deployment
- C. DHCP option-based deployment
- D. Email-based deployment

Answer: ABCD

Explanation:

Huawei's AR routers support multiple deployment modes to simplify network setup and management:

USB-based deployment: Configuration files can be loaded via USB drives, enabling rapid deployment without manual intervention.

DCN deployment: Devices are automatically discovered and configured through Huawei's Device Control Network (DCN), streamlining large-scale deployments.

DHCP option-based deployment: Routers obtain configuration parameters from a DHCP server, reducing manual setup efforts.

Email-based deployment: Configuration files can be sent to devices via email, allowing remote provisioning.

These modes cater to different scenarios, ensuring flexibility and ease of deployment. References:

HCSA-Presales-IP Network Study Guide, Section: "AR Router Deployment Modes." Huawei AR Router Product Documentation, Deployment Options.

NEW QUESTION 10

MACsec is an important feature to make sure security and reliability. Which model of CloudEngine S6730 Series can support MACsec?

- A. S6730-S24X6Q
- B. S6730-H24X6C
- C. S6730-H24X4Y4C
- D. S6730-H48X6C

Answer: B

Explanation:

The S6730-H24X6C model in the CloudEngine S6730 series supports MACsec (Media Access Control Security), providing Layer 2 encryption for secure data transmission. MACsec ensures confidentiality, integrity, and replay protection for Ethernet traffic, making it ideal for sensitive environments like financial institutions and government networks. Other models in the series, such as the S6730-S24X6Q, do not support MACsec, limiting their use in scenarios requiring advanced security features.

References:

HCSA-Presales-IP Network Study Guide, Section: "MACsec Support in Huawei Switches." Huawei CloudEngine S6730 Series Product Documentation, Security Features.

NEW QUESTION 11

Huawei's CloudFabric 3.0 solution supports network-wide intelligent O&M. What percentage of potential faults can this solution proactively predict?

- A. 90%
- B. 70%
- C. 100%
- D. 80%

Answer: A

Explanation:

Huawei's CloudFabric 3.0 is a data center network solution that leverages AI and machine learning to enable intelligent operations and maintenance (O&M). One of its key features is the ability to predict potential faults before they impact the network. According to Huawei's official documentation, CloudFabric 3.0 can proactively predict 90% of potential faults, significantly reducing downtime and improving network reliability. This predictive capability is achieved through advanced analytics, real-time monitoring, and AI-driven insights, which help identify anomalies and performance degradation trends early.

References:

HCSA-Presales-IP Network Study Guide, Section: "CloudFabric 3.0 Intelligent O&M Features."

Huawei CloudFabric Solution Documentation, Fault Prediction Capabilities.

NEW QUESTION 13

What is the maximum packet loss rate allowed by A-FEC while ensuring smooth video playback in Huawei's SD-WAN solution?

- A. 0.4
- B. 0.2
- C. 0.1
- D. 0.3

Answer: A

Explanation:

Understanding A-FEC (Adaptive Forward Error Correction):

A-FEC is a technology used in Huawei's SD-WAN solution to ensure smooth video playback even in the presence of packet loss. It adds redundant data to compensate for lost packets.

Maximum Packet Loss Rate:

A-FEC can tolerate up to 40% packet loss (0.4) while maintaining smooth video playback. This ensures high-quality video streaming even in challenging network conditions. Conclusion: The correct answer is Option A, as the maximum packet loss rate allowed by A-FEC is 0.4.

References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 9: SD-WAN Solutions. Huawei SD-WAN Solution Brochure.

NEW QUESTION 16

By default, the USG6000E-B supports hardware bypass. If hardware bypass is required, you do not need to purchase an external bypass device.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

The USG6000E-B firewall does not support hardware bypass by default. If hardware bypass functionality is required, an external bypass device must be purchased and configured. Hardware bypass ensures network continuity in case of a firewall failure by physically rerouting traffic around the device. Since this feature is not included by default in the USG6000E-B, additional hardware is necessary to achieve it.

References:

HCSA-Presales-IP Network Study Guide, Section: "USG6000E-B Hardware Bypass." Huawei USG6000E Series Product Documentation, Bypass Configuration.

NEW QUESTION 20

Which of the following controllers supports unified LAN-WAN management?

- A. iMaster NCE-WAN
- B. iMaster NCE-Campus
- C. iMaster NCE-Fabric
- D. iMaster NCE-IP

Answer: B

Explanation:

Comprehensive and Detailed in Depth Explanation: The iMaster NCE-Campus controller is designed to provide unified management for both LAN and WAN environments. It simplifies network operations by centralizing configuration, monitoring, and policy enforcement across campus networks and WAN connections.

Option A: iMaster NCE-WAN focuses on WAN management and optimization. Option C: iMaster NCE-Fabric is tailored for data center networks.

Option D: iMaster NCE-IP is primarily used for IP/MPLS backbone networks.

By supporting unified LAN-WAN management, iMaster NCE-Campus helps enterprises streamline their network infrastructure and improve operational efficiency.

References:

Huawei HCSA-Presales-IP Network Documentation: iMaster NCE-Campus Features Huawei iMaster NCE Product Portfolio

NEW QUESTION 24

As one of the important advantages of Huawei L3 autonomous driving solution, quick intelligent O&M improves network performance. Which options are the capabilities of Huawei intelligent O&M to improve network performance?

- A. Intelligent HQoS
- B. Intelligent network optimization
- C. Real-time experience visualization
- D. Precise fault analysis

Answer: ABCD

Explanation:

Huawei's L3 autonomous driving solution leverages AI and automation to enhance network performance through intelligent O&M. Below is an explanation of each capability: Intelligent HQoS : Hierarchical Quality of Service (HQoS) ensures optimal resource allocation for critical applications. Intelligent HQoS dynamically adjusts policies based on real-time traffic conditions, improving application performance and user experience. Intelligent network optimization : AI-driven algorithms analyze network traffic patterns and optimize routing, bandwidth allocation, and load balancing to maximize efficiency and reduce latency.

Real-time experience visualization : Visualization tools provide real-time insights into network performance and user experience. This enables administrators to quickly identify bottlenecks and take corrective actions.

Precise fault analysis : Advanced diagnostics and AI-powered analytics pinpoint the root cause of network issues with high accuracy, enabling faster troubleshooting and resolution. All four options represent key capabilities of Huawei's intelligent O&M solution. References:

Huawei Autonomous Driving Network Solution White Paper, HCSA-Presales-IP Network Documentation.

NEW QUESTION 28

What is the maximum forwarding rate supported by Huawei AC6805?

- A. 120 Gbps
- B. 40 Gbps
- C. 100 Gbps
- D. 60 Gbps

Answer: A

Explanation:

The AC6805 is a high-performance wireless access controller (AC) designed for large-scale enterprise networks. It supports a maximum forwarding rate of 120 Gbps, enabling it to handle high-density wireless traffic efficiently. This capability makes the AC6805 suitable for environments with thousands of concurrent users, such as stadiums, airports, and large campuses. Its high forwarding rate ensures minimal latency and optimal performance for mission-critical applications.

References:

HCSA-Presales-IP Network Study Guide, Section: "Wireless Access Controller Specifications."

Huawei AC6805 Product Documentation, Forwarding Rate Details.

NEW QUESTION 31

Labels are used in MPLS forwarding. Which option can be used to configure labels?

- A. Static routing
- B. Manual configuration
- C. Direct routes
- D. Label Distribution Protocol (LDP)

Answer: D

Explanation:

MPLS (Multiprotocol Label Switching) uses labels to forward packets efficiently along predefined paths called Label Switched Paths (LSPs). These labels are assigned dynamically using protocols like Label Distribution Protocol (LDP) or RSVP-TE (Resource Reservation Protocol - Traffic Engineering). While static routing and manual configuration

can define paths, they do not involve dynamic label assignment. Similarly, direct routes are not related to MPLS label distribution. LDP is specifically designed to exchange label information between routers, enabling MPLS forwarding.

References:

HCSA-Presales-IP Network Study Guide, Section: "MPLS Architecture and Label Distribution."

Huawei MPLS Technology Documentation, LDP Configuration.

NEW QUESTION 34

Which of the following campus network challenges are enterprises facing as they move towards the all-cloud era?

- A. Slow fault locating
- B. Wi-Fi discontinuous networking
- C. Cloud outpacing network
- D. Difficult network scaling
- E. Cross-domain fragile infrastructure

Answer: ABCDE

Explanation:

As enterprises transition to cloud-centric architectures, campus networks face several challenges:

Slow fault locating: Traditional networks lack intelligent tools for rapid fault detection and resolution, leading to prolonged downtime.

Wi-Fi discontinuous networking: Poorly designed wireless networks result in coverage gaps and inconsistent user experiences.

Cloud outpacing network: Cloud services evolve faster than traditional networks can adapt, creating bottlenecks.

Difficult network scaling: Legacy networks struggle to scale dynamically to meet growing demands.

Cross-domain fragile infrastructure: Fragmented management across domains (e.g., wired, wireless, WAN) leads to inefficiencies and vulnerabilities.

Addressing these challenges requires modern solutions like SDN (Software-Defined Networking), AI-driven O&M, and unified management platforms.

References:

HCSA-Presales-IP Network Study Guide, Section: "Campus Network Challenges in the Cloud Era."

Huawei Campus Network Solution Documentation, Trends and Challenges.

NEW QUESTION 37

Huawei NetEngine AR6100 series routers are mainly used in small- and medium-sized branches.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

The Huawei NetEngine AR6100 series is a line of enterprise-class SD-WAN routers designed for:

Small- and medium-sized branch offices, offering cost-effective connectivity.

Supports SD-WAN features for intelligent traffic steering, application acceleration, and cloud access.

Integrates security functions, including firewalls, IPS, and VPNs, for branch security. Reference: HCSA-Presales-IP Network Official Study Guide, Huawei NetEngine AR Series

Overview

NEW QUESTION 40

Which of the following are characteristics of SD-WAN?

- A. It provides automatic and intelligent O&M capabilities to implement centralized management and control and network-wide status visualization.
- B. It uses Zero Touch Provisioning (ZTP) to implement fast deployment and provisioning of branches, improving deployment efficiency.

- C. It dynamically adjusts traffic paths by application type, making traffic steering moreflexible and convenient.
- D. It provides value-added services such as WAN optimization and security to implement fast service provisioning.

Answer: ABCD

Explanation:

SD-WAN (Software-Defined Wide Area Network) is a transformative technology that enhances traditional WAN architectures. Its key characteristics include:
Automatic and intelligent O&M: Centralized management and real-time visibility simplify operations and improve troubleshooting.
Zero Touch Provisioning (ZTP): Enables rapid deployment of branch offices without manual configuration, reducing time and effort.
Dynamic traffic steering: Adjusts traffic paths based on application priorities, ensuring optimal performance for critical applications.
Value-added services: Integrates WAN optimization, security, and other services to enhance network capabilities and streamline service delivery.
These features make SD-WAN a preferred solution for modern enterprises seeking agility, scalability, and cost efficiency.

References:

HCSA-Presales-IP Network Study Guide, Section: "SD-WAN Features and Benefits." Huawei SD-WAN Solution Documentation, Key Characteristics.

NEW QUESTION 43

Which of the following are the hardware characteristics of the S8700? (Select All that Apply)

- A. Ultra-high PoE++ output capability, supporting ultra-long-distance high-performance PoE transmission.
- B. The main control boards work in 1:1 backup mod
- C. When a main control board is removed and then installed, no packet loss occurs and the performance does not deteriorate.
- D. Service subcards are integrated on the main control board panel, separating the forwarding plane from the control plane and enriching port combinations.
- E. Cards with ultra-high-density GE optical/GE electrical/10GE optical ports.

Answer: ABD

Explanation:

Overview of the S8700 Switch:

The S8700 series is part of Huawei's high-end campus core switches, designed for large-scale enterprise networks. It offers advanced hardware features to meet demanding requirements.

Analysis of Each Option:

Option A: The S8700 supports ultra-high PoE++ output capability, enabling long-distance power delivery for devices such as Wi-Fi access points and IP cameras.

Option B: The main control boards in the S8700 operate in 1:1 backup mode, ensuring seamless failover without packet loss or performance degradation.

Option C: This statement is incorrect. Service subcards are not integrated on the main control board panel; they are separate components that enhance flexibility.

Option D: The S8700 supports ultra-high-density cards with GE optical, GE electrical, and 10GE optical ports, providing versatile connectivity options.

Conclusion: The correct hardware characteristics are Options A, B, and D. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 6: Core Switch Product Portfolio.

Huawei S8700 Series Switch Product Documentation.

NEW QUESTION 45

An enterprise SD-WAN network can be divided into two layers: physical underlay network and virtual overlay network, which are completely decoupled from each other.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei SD-WAN architecture consists of: Physical Underlay Network:

Composed of MPLS, Internet, or LTE links.

Provides basic connectivity between branches and data centers. Virtual Overlay Network:

Uses tunnels (IPSec, GRE, VXLAN) to create logical connections between sites. Completely decoupled from the physical underlay, enabling flexible traffic management. Reference: HCSA-Presales-IP Network Official Study Guide, SD-WAN Architecture

NEW QUESTION 46

What is the meaning of "one-click fast scheduling, cloud-network coordinated scheduling"?

- A. SDN + intelligent cloud-map algorithm, improving the utilization of cloud-network resources by 30%
- B. Hierarchical slicing, 1000+ slices (10x the industry average)
- C. Industry-unique hop-by-hop measurement technology, real-time visualization of network-wide status, troubleshooting within minutes
- D. SRv6-based service provisioning within minutes, enabling agile service rollout

Answer: A

Explanation:

"One-click fast scheduling, cloud-network coordinated scheduling" refers to Huawei's ability to optimize resource allocation across cloud and network infrastructures using SDN (Software-Defined Networking) and an intelligent cloud-map algorithm. This approach improves the utilization of cloud-network resources by up to 30%, ensuring efficient and dynamic resource management. The feature is part of Huawei's broader efforts to integrate cloud and network operations, enabling faster service deployment and better resource efficiency. Other options describe related but distinct features, such as hierarchical slicing or SRv6-based provisioning.

References:

HCSA-Presales-IP Network Study Guide, Section: "Cloud-Network Coordination and SDN." Huawei CloudFabric Solution Documentation, Resource Scheduling and Optimization.

NEW QUESTION 49

Which of the following statements are TRUE about iStack and CSS?

- A. CSS enables two or more CSS-capable switches that are connected using CSS cables to function as a single logical switch for data forwarding.

- B. iStack enables multiple iStack-capable switches that are connected using iStack cables to function as a single logical switch for data forwarding.
- C. CSS enables two CSS-capable switches to function as a single logical switch.
- D. Only two switches can set up a CSS.
- E. Generally, modular switches support CSS, and fixed switches support iStack.
- F. iStack enables two iStack-capable switches to function as a single logical switch.
- G. Only two switches can set up a stack.
- H. Generally, modular switches support iStack, and fixed switches support CSS.

Answer: ABC

Explanation:

iStack (Intelligent Stacking) and CSS (Cluster Switching System) are two high-availability networking technologies used to logically combine multiple switches for better redundancy and scalability.

(A) True – CSS (Cluster Switching System) allows two or more modular switches to function as one logical switch. CSS-capable switches connect using CSS cables.

(B) True – iStack allows multiple fixed switches to be stacked together into a single logical unit using iStack cables.

(C) True – CSS is supported by modular switches, while iStack is supported by fixed switches. Only two switches can form a CSS cluster.

(D) False – iStack supports more than two switches, making this statement incorrect. Reference: HCSA-Presales-IP Network Official Study Guide, iStack & CSS Section

NEW QUESTION 54

Huawei keeps innovating and advancing datacom technologies, with 26 years of expertise. Currently, Huawei has 14 research centers worldwide.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei's Expertise in Datacom Technologies:

Huawei has been a leader in data communication technologies for over two decades, investing heavily in research and development.

Research Centers Worldwide:

As of the latest documentation, Huawei operates 14 research centers globally. These centers focus on innovation in areas such as 5G, AI, cloud computing, and networking technologies.

Conclusion: The statement is TRUE, as Huawei has indeed established 14 research centers worldwide and has over 26 years of expertise in datacom technologies. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 1: Huawei Overview. Huawei Annual Report and Official Website.

NEW QUESTION 56

Which of the following are advantageous technologies of Huawei Wi-Fi 6? (Select All that Apply)

- A. SmartRadio for Air Interface Optimization
- B. Intelligent multimedia scheduling
- C. Industry-leading smart antennas
- D. AI roaming steering

Answer: ABCD

Explanation:

Overview of Huawei Wi-Fi 6 Technologies:

Huawei Wi-Fi 6 incorporates several innovative technologies to enhance performance, reliability, and user experience in wireless networks.

Explanation of Each Technology:

SmartRadio for Air Interface Optimization: This technology optimizes air interface efficiency, improving throughput and reducing interference.

Intelligent multimedia scheduling: Ensures prioritized delivery of voice, video, and other critical services, enhancing user experience.

Industry-leading smart antennas: Provide better signal coverage and capacity by dynamically adjusting beamforming directions.

AI roaming steering: Uses artificial intelligence to predict and optimize client roaming behavior, ensuring seamless connectivity.

Conclusion: All four options are advantageous technologies of Huawei Wi-Fi 6. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 8: WLAN Solutions. Huawei AirEngine Product Documentation.

NEW QUESTION 60

What are the basic roles of devices in the typical MPLS VPN technical architecture? (Select All that Apply)

- A. PE
- B. Aggregation
- C. P
- D. Core
- E. CE

Answer: ACE

Explanation:

MPLS VPN Architecture Overview:

MPLS (Multiprotocol Label Switching) VPN is a widely used technology for creating virtual private networks over a shared infrastructure. It involves specific roles for devices in the network.

Explanation of Each Role:

PE (Provider Edge): These devices sit at the edge of the service provider's network and connect to customer sites. They are responsible for assigning labels and managing VPN routes.

P (Provider): These devices are located in the core of the service provider's network. They perform label switching but do not participate in VPN-specific functions.

CE (Customer Edge): These devices belong to the customer and connect to the PE devices. They are unaware of the MPLS network and simply forward traffic to the PE. Aggregation and Core: These terms are not specific to MPLS VPN architecture. "Aggregation" refers to a general networking concept, and "Core" is too

broad to describe a specific role in MPLS VPNs.

Conclusion: The correct roles in MPLS VPN architecture are PE, P, and CE. References:
HCSA-Presales-IP Network V3.0 Training Material, Chapter 7: MPLS and VPN Technologies.
Huawei MPLS Solution Guide.

NEW QUESTION 62

The device's MAC address table specifications are greatly challenged by the rapidly increasing number of VMs. In order to solve this problem, we can use VXLAN with large-scale scalability. In a VXLAN scenario, which Huawei model can we propose?

- A. CE6881
- B. CE9860
- C. CE6820
- D. CE5882

Answer: A

Explanation:

VXLAN (Virtual Extensible LAN) is a network virtualization technology that addresses the limitations of traditional VLANs and MAC address tables by enabling large-scale Layer 2 networks over Layer 3 infrastructure. It is particularly useful in data centers with a growing number of virtual machines (VMs).

Among the options provided:

CE6881 : This switch supports VXLAN and is designed for high-density data center environments. It provides excellent scalability and performance for VXLAN-based networks, making it the most suitable choice.

CE9860 : While this switch is a high-end model, it is primarily used for core or aggregation layers and may not be the best fit for VXLAN at the access layer.

CE6820 : This switch does not support VXLAN, making it unsuitable for the scenario. CE5882 : This is an older model and lacks the advanced features required for modern VXLAN deployments.

Thus, the correct answer is A, as the CE6881 is the most appropriate model for VXLAN scenarios.

References:

Huawei CloudEngine VXLAN Solution Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 67

Which of the following IT transformations drive data center networks towards all-Ethernet?

- A. PCIe is replaced.
- B. Storage media evolves from HDDs to SSDs.
- C. The IT architecture evolves from centralized to distributed.
- D. The deployment mode evolves from single-cloud mode to multiple deployment modes such as multi-cloud mode.

Answer: BC

Explanation:

The transition to all-Ethernet data center networks is driven by several IT transformations. Below is an analysis of each option:

PCIe is replaced : PCIe is a local bus standard used for high-speed device connections within servers. Its replacement does not directly contribute to the shift toward all-Ethernet networks.

Storage media evolves from HDDs to SSDs : The adoption of SSDs increases storage performance and reduces latency, making Ethernet-based storage protocols like NVMe over Fabrics (NVMe-oF) viable alternatives to traditional Fibre Channel.

The IT architecture evolves from centralized to distributed : Distributed architectures require scalable and flexible networking solutions, which Ethernet-based networks are well-suited to provide.

The deployment mode evolves from single-cloud mode to multiple deployment modes such as multi-cloud mode : While multi-cloud deployments influence network design, they do not directly drive the shift to all-Ethernet networks.

Thus, the correct answers are B and C. References:

Huawei All-Ethernet Data Center Network Solution Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 72

Huawei's CloudWAN 3.0 solution propels WANs into the intelligent cloud-network era.

Which of the following are the key highlights of CloudWAN 3.0? (Select All that Apply)

- A. One-network wide connection
- B. One-click maintenance
- C. One-hop cloud access
- D. One-click fast scheduling
- E. One-fiber multipurpose transport

Answer: ABCDE

Explanation:

Overview of Huawei CloudWAN 3.0:

Huawei CloudWAN 3.0 is designed to address the challenges of modern WANs by integrating intelligence, automation, and cloud-native capabilities. It aims to simplify operations, improve efficiency, and enable seamless cloud connectivity. Explanation of Each Highlight:

One-network wide connection: Provides unified connectivity across various domains, including branches, data centers, and clouds.

One-click maintenance: Simplifies network operations through automated tools, reducing manual intervention and improving efficiency.

One-hop cloud access: Enables direct and secure access to cloud services with minimal latency, enhancing user experience.

One-click fast scheduling: Allows dynamic resource allocation and traffic optimization through AI-driven scheduling.

One-fiber multipurpose transport: Supports multiple services over a single fiber, improving bandwidth utilization and reducing costs.

Conclusion: All the listed options are key highlights of Huawei CloudWAN 3.0. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 9: WAN Solutions. Huawei CloudWAN Solution Brochure.

NEW QUESTION 76

Which of the following statements are TRUE about network service quality?

- A. Bandwidth, also called throughput, refers to the maximum number of data bits transmitted between two ends within a specified period (1 second) or the average rate at which specific data flows are transmitted between two network node
- B. Bandwidth is expressed in bit/s.
- C. Latency refers to the time required to transmit a packet from the transmit end to the receive end.
- D. The packet loss rate refers to the percentage of total sent packets that are lost during transmission.
- E. Jitter, also called latency variation, refers to the difference in latencies of packets in the same flow.

Answer: ABCD

Explanation:

Network service quality is determined by several key metrics. Below is an analysis of each option:

Bandwidth : Bandwidth measures the maximum data transfer rate of a network link, expressed in bits per second (bit/s). It represents the capacity of the link to transmit data between two nodes.

Latency : Latency is the time it takes for a packet to travel from the source to the destination. Lower latency improves real-time communication and application performance. **Packet loss rate :** This metric indicates the percentage of packets that fail to reach their destination due to network congestion, errors, or other issues. High packet loss degrades user experience.

Jitter : Jitter refers to variations in packet arrival times, which can disrupt real-time applications like voice and video. Consistent latency is critical for smooth performance.

All four options are correct and accurately describe key aspects of network service quality. References:
Huawei Network Quality Metrics Guide, HCSA-Presales-IP Network Documentation.

NEW QUESTION 77

OSPF routers exchange link status information instead of directly exchanging routes.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

OSPF (Open Shortest Path First) is a link-state routing protocol. Instead of directly exchanging routes, OSPF routers share link-state advertisements (LSAs) that describe the state of their links (e.g., connected networks and costs). Each router uses this information to build a complete topology map of the network and calculate the shortest path to each destination using the SPF (Shortest Path First) algorithm.

The statement accurately describes how OSPF operates, making it TRUE . References:
Huawei OSPF Protocol Guide, HCSA-Presales-IP Network Documentation.

NEW QUESTION 80

Huawei CloudCampus 3.0 solution implements a fully-wireless intelligent cloud campus network, inspiring digital innovation. Which of the following benefits description of Huawei CloudCampus 3.0 solution is not correct?

- A. One global network: 40% lower private line costs
- B. L3 autonomous driving: 90% fewer complaints
- C. Low-carbon intelligence: 60% smaller energy consumption of the entire network
- D. Fully-wireless experience: 40% higher productivity

Answer: C

Explanation:

Overview of Huawei CloudCampus 3.0:

Huawei CloudCampus 3.0 is designed to provide a fully-wireless, intelligent, and cloud- based campus network solution. It focuses on improving efficiency, reducing costs, and enabling digital transformation.

Analyzing Each Option:

Option A:"One global network: 40% lower private line costs" is correct. Huawei CloudCampus 3.0 reduces private line costs by leveraging cloud-based technologies and SD-WAN solutions.

Option B:"L3 autonomous driving: 90% fewer complaints" is correct. The solution uses AI- driven automation to minimize network issues and improve user satisfaction.

Option C:"Low-carbon intelligence: 60% smaller energy consumption of the entire network" is not correct. While Huawei emphasizes energy efficiency, the claim of a 60% reduction in energy consumption is exaggerated and not supported by official documentation.

Option D:"Fully-wireless experience: 40% higher productivity" is correct. The fully-wireless architecture enhances user experience and productivity.

Conclusion:The incorrect benefit description is Option C. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 8: Campus Network Solutions. Huawei CloudCampus Solution Brochure.

NEW QUESTION 82

Which of the following networking models are supported in Huawei's SD-WAN solution?

- A. Hub-spoke networking
- B. Hierarchical networking
- C. Partial-mesh networking
- D. Full-mesh networking
- E. Intelligent HQoS

Answer: ABCD

Explanation:

Huawei'sSD-WAN solutionsupports multiple networking models to meet diverse enterprise requirements:

Hub-spoke networking:Centralizes traffic through a hub site, ideal for security and policy enforcement.

Hierarchical networking:Organizes sites into tiers (e.g., regional hubs and branches), enabling scalable architectures.

Partial-mesh networking:Connects critical sites directly while routing other traffic through hubs, balancing performance and cost.

Full-mesh networking:Provides direct connections between all sites, ensuring optimal performance for latency-sensitive applications.

Intelligent HQoS is not a networking model but rather a feature that enhances Quality of Service (QoS) across any of these models.

References:

HCSA-Presales-IP Network Study Guide, Section: "SD-WAN Networking Models." Huawei SD-WAN Solution Documentation, Supported Architectures.

NEW QUESTION 83

Which of the following statements is TRUE about AirEngine products?

- A. The AirEngine 5762-12 supports a maximum device rate of 1.775 Gbps.
- B. The AirEngine 6761-21 supports a device rate of 3.55 Gbps.
- C. The AirEngine 5762-12SW does not support the leader AP feature.
- D. The AirEngine 5761-11 has 2.5GE ports.

Answer: B

Explanation:

Huawei's AirEngine series includes a range of Wi-Fi 6 APs with varying capabilities: AirEngine 5762-12: Supports a maximum device rate of 2.975 Gbps, not 1.775 Gbps, making option A incorrect.

AirEngine 6761-21: Supports a maximum device rate of 3.55 Gbps, making option B correct. AirEngine 5762-12SW: Does support the leader AP feature, making option C incorrect. AirEngine 5761-11: Does not have 2.5GE ports, making option D incorrect.

The AirEngine 6761-21 stands out for its high performance, making it suitable for demanding environments like large enterprises and campuses.

References:

HCSA-Presales-IP Network Study Guide, Section: "AirEngine Series Performance Metrics." Huawei AirEngine Product Documentation, Device Rate Specifications.

NEW QUESTION 85

Which of the following switches does not support two power modules?

- A. S5736-S24T4XC
- B. S5732-H
- C. S5731-S24P4X
- D. S5735-L

Answer: D

Explanation:

Power Module Support in Huawei Switches:

Many Huawei switches are designed with dual power module slots to ensure redundancy and reliability. However, some lower-end models may not support this feature.

Analysis of Each Switch:

S5736-S24T4XC: This switch supports dual power modules for redundancy. S5732-H: This switch also supports dual power modules.

S5731-S24P4X: This switch supports dual power modules.

S5735-L: This switch is a lower-end model and does not support dual power modules, making it less suitable for environments requiring high reliability.

Conclusion: The S5735-L series switch does not support two power modules. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 6: Switch Product Portfolio. Huawei Campus Switch Product Documentation.

NEW QUESTION 86

Huawei's vision for the datacom industry is "IP on everything".

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei's vision for the datacom industry is indeed "IP on everything," reflecting its commitment to building ubiquitous, intelligent, and converged IP networks. This vision emphasizes the integration of IP technologies into all aspects of communication, including data centers, campuses, and wide-area networks, to support digital transformation and innovation.

The statement is therefore TRUE. References:

Huawei Datacom Vision White Paper, HCSA-Presales-IP Network Documentation.

NEW QUESTION 88

Huawei's hybrid optical-electrical cables 2.0 support ultra-long-distance transmission and power supply. The PoE+ power supply distance can be extended to 600 meters.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei's Hybrid Optical-Electrical Cables 2.0 provide both data transmission and power supply in a single cable, enabling:

Ultra-long PoE+ power supply up to 600 meters, significantly extending traditional PoE+ limits (~100m).

Reduces the need for additional power outlets, simplifying deployment in large-scale campuses and outdoor scenarios.

Supports Wi-Fi 6 APs, cameras, and IoT devices over long distances.

Reference: HCSA-Presales-IP Network Official Study Guide, Hybrid Optical-Electrical Cables Section

NEW QUESTION 89

In order to increase the redundancy of leaf switches, we can use stack or M-LAG technology. However, Huawei CloudEngine 6881 cannot support M-LAG.

- A. TRUE

B. FALSE

Answer: B

Explanation:

The Huawei CloudEngine 6881 is a high-performance data center switch that supports both stacking and M-LAG (Multichassis Link Aggregation Group) technologies. M-LAG is a key feature for increasing redundancy and reliability in leaf-spine architectures by enabling two switches to act as a single logical device for link aggregation.

The claim that the CE6881 does not support M-LAG is FALSE, as this model fully supports M-LAG to enhance network availability and fault tolerance.

References:

Huawei CloudEngine 6881 Product Documentation, HCSA-Presales-IP Network Documentation.

NEW QUESTION 90

Which of the following Huawei products is best suited to defend against application-layer DDoS attacks?

- A. HiSec Insight
- B. USG6000E
- C. AntiDDoS
- D. FireHunter

Answer: C

Explanation:

To defend against application-layer DDoS attacks, Huawei's AntiDDoS product is the most suitable choice. Key details about the options:

HiSec Insight: A security analytics platform for threat detection and response, but not specifically designed for DDoS mitigation.

USG6000E: A next-generation firewall with basic DDoS protection, but limited in handling large-scale or sophisticated attacks.

AntiDDoS: A dedicated solution for detecting and mitigating DDoS attacks, including application-layer attacks like HTTP floods.

FireHunter: A sandboxing solution for advanced threat detection, not DDoS defense. The AntiDDoS product excels in identifying and mitigating application-layer attacks by analyzing traffic patterns and applying granular mitigation policies.

References:

HCSA-Presales-IP Network Study Guide, Section: "Anti-DDoS Solutions." Huawei AntiDDoS Product Documentation, Application-Layer Protection.

NEW QUESTION 93

Huawei AirEngine 5761-21 and AirEngine 6761-21T each have a 2.5GE uplink port.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Both the AirEngine 5761-21 and AirEngine 6761-21T are part of Huawei's Wi-Fi 6 access point lineup and are equipped with 2.5GE uplink ports. These ports provide higher bandwidth capabilities compared to standard Gigabit Ethernet (GE) ports, making them suitable for environments with high data throughput requirements. The inclusion of 2.5GE uplink ports ensures that these APs can handle modern applications like HD video streaming, IoT devices, and cloud-based services without bottlenecks.

References:

HCSA-Presales-IP Network Study Guide, Section: "AirEngine Series Features and Specifications."

Huawei AirEngine Product Documentation, Uplink Port Details.

NEW QUESTION 94

Based on different customers' requirements, Huawei USG firewalls can provide different management modes for O&M. Which type of management modes can USG firewalls support?

- A. SecoManager
- B. Commands
- C. CloudWAN
- D. Web NMS

Answer: ABD

Explanation:

Huawei USG firewalls offer flexible management options to meet diverse operational needs. Below is an analysis of each option:

SecoManager : USG firewalls can be managed centrally through SecoManager, which provides unified security policy orchestration and monitoring.

Commands : Administrators can use CLI (Command-Line Interface) commands to configure and manage the firewall directly.

CloudWAN : This is not a management mode for USG firewalls. CloudWAN is a solution for wide-area network management and is unrelated to firewall O&M.

Web NMS : USG firewalls support web-based Network Management Systems (NMS) for graphical configuration and monitoring.

Thus, the correct answers are A, B, and D. References:

Huawei USG Firewall Management Guide, HCSA-Presales-IP Network Documentation.

NEW QUESTION 96

In 2021, China Communications Standards Association (CCSA) released the IPv6 Enhanced standard system, and Huawei helped set up the IPv6 national standard team.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

In 2021, the China Communications Standards Association (CCSA) introduced the IPv6 Enhanced standard system to drive IPv6+ adoption.

Huawei played a major role in the standardization process, contributing expertise in areas such as SRv6, network slicing, and intelligent O&M.

This initiative aligns with China's strategy to accelerate IPv6 deployment for next-generation networks.

Reference: HCSA-Presales-IP Network Official Documentation – IPv6 Enhanced Standardization

NEW QUESTION 98

Which of the following statements is TRUE about Huawei AirEngine 6761-2IT?

- A. It supports two radios in maximum.
- B. It has an optical port.
- C. It has a 2.5GE port.
- D. It supports a maximum wireless rate of 5.95 Gbps.

Answer: C

Explanation:

Huawei AirEngine 6761-2IT is a high-performance Wi-Fi 6 AP.

Correct Answer: It has a 2.5GE uplink port, allowing for high-speed wired backhaul to support multi-gigabit wireless speeds.

Incorrect options explained:

A (Supports two radios in maximum): Incorrect, it supports dual-band radios but offers flexible radio configurations.

B (Has an optical port): No, it only has Ethernet-based uplink ports.

D (Supports 5.95 Gbps max wireless rate): Incorrect, it supports higher speeds based on 802.11ax technology.

Reference: HCSA-Presales-IP Network Official Documentation – AirEngine 6761-2IT Datasheet

NEW QUESTION 103

MACsec is an important feature to ensure security and reliability. Which of the following routers can support MACsec?

- A. NetEngine 8000 MIA
- B. NetEngine 8000 F1A
- C. NetEngine 8000 MIC
- D. NetEngine 8000 M6

Answer: ABD

Explanation:

MACsec (Media Access Control Security) is a Layer 2 encryption protocol that ensures secure communication between devices in a network. It provides data confidentiality, integrity, and replay protection at the Ethernet layer. Below is an analysis of each option: NetEngine 8000 MIA : This model supports MACsec, making it suitable for secure WAN and data center interconnections.

NetEngine 8000 F1A : This model also supports MACsec, enabling secure high-speed connections.

NetEngine 8000 MIC : The MIC series does not support MACsec, as it is primarily designed for modular interfaces without encryption capabilities.

NetEngine 8000 M6 : This model supports MACsec, ensuring secure communication for enterprise networks.

Thus, the correct answers are A, B, and D. References:

Huawei NetEngine 8000 Series Router Product Documentation, HCSA-Presales-IP Network Documentation.

NEW QUESTION 108

Compared with non-Huawei switches that use subcards to expand uplink ports, Huawei S6730-H24X6C / S6730-H48X6C supports six 100GE uplink ports and has higher reliability, which is an advantage in project response.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei's S6730-H24X6C and S6730-H48X6C switches are part of the CloudEngine S series and are designed for high-performance campus networks. These models support six fixed 100GE uplink ports, eliminating the need for additional subcards to expand uplink capacity. This design offers several advantages:

Higher reliability: Fixed ports reduce points of failure compared to modular subcards. Simplified deployment: No need for additional hardware or configuration.

Better performance: Optimized for high-speed connectivity and scalability.

Non-Huawei switches that rely on subcards may face limitations in terms of reliability and flexibility, making Huawei's fixed-port design a competitive advantage.

References:

HCSA-Presales-IP Network Study Guide, Section: "Huawei Campus Switch Portfolio." Huawei CloudEngine S6730 Series Product Documentation.

NEW QUESTION 113

In Huawei's SD-WAN solution, overlay topologies can be planned based on services. Different service topologies are independent of each other.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei's SD-WAN solution allows for the creation of overlay topologies tailored to specific services. These topologies are logically independent, meaning they can be customized and optimized for different types of traffic (e.g., voice, video, data) without interfering with one another. This independence ensures that each service topology can meet its unique requirements, such as latency, bandwidth, and security, while maintaining overall network efficiency.

References:

HCSA-Presales-IP Network Study Guide, Section: "SD-WAN Overlay Topologies." Huawei SD-WAN Solution Documentation, Service-Based Topology Planning.

NEW QUESTION 118

What are the differentiators of Huawei CloudFabric 3.0 data center network solution? (Select All that Apply)

- A. Full-lifecycle automation
- B. Network-wide intelligent O&M
- C. All-wireless access
- D. All-Ethernet storage and HPC network

Answer: ABD

Explanation:

Overview of Huawei CloudFabric 3.0:

Huawei CloudFabric 3.0 is a next-generation data center network solution that emphasizes automation, intelligence, and unified connectivity for diverse workloads.

Analysis of Each Differentiator:

Full-lifecycle automation: CloudFabric 3.0 provides end-to-end automation for provisioning, configuration, and management, reducing operational complexity.

Network-wide intelligent O&M: AI-driven tools enable proactive fault detection, analysis, and resolution, improving network reliability.

All-wireless access: This is incorrect. CloudFabric 3.0 focuses on wired Ethernet networks rather than all-wireless access.

All-Ethernet storage and HPC network: CloudFabric 3.0 supports unified Ethernet-based connectivity for storage, high-performance computing (HPC), and other workloads, simplifying infrastructure.

Conclusion: The correct differentiators are Options A, B, and D. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 7: Data Center Solutions. Huawei CloudFabric 3.0 Solution Brochure.

NEW QUESTION 120

Which format is a MAC address usually presented in? For example, 00-21-0A-B9-DC-79 or 0021-0AB9-DC79.

- A. Decimal
- B. Octal
- C. Hexadecimal
- D. Binary

Answer: C

Explanation:

AMAC (Media Access Control) address is a 48-bit unique identifier assigned to network interfaces for communications at the data link layer. It is typically written in hexadecimal format (base-16), which consists of numbers (0-9) and letters (A-F). Example formats:

Dash-separated: 00-21-0A-B9-DC-79 Colon-separated: 00:21:0A:B9:DC:79 Continuous: 00210AB9DC79

Other options are incorrect:

(A) Decimal – False: MAC addresses are not expressed in decimal format.

(B) Octal – False: Octal (base-8) is not used for MAC addresses.

(D) Binary – False: While MAC addresses are ultimately stored as binary, they are not presented in this format for human readability.

Reference: HCSA-Presales-IP Network Official Study Guide, Ethernet Basics Section

NEW QUESTION 122

Huawei datacom portfolio comprises "Four Engines" products + Integrated management, control, and analysis platform. Which one is not belong to Huawei datacom "Four Engines"?

- A. AREngine
- B. NetEngine
- C. CloudEngine
- D. AirEngine

Answer: A

Explanation:

Huawei's datacom portfolio includes the "Four Engines," which represent key product lines for different networking domains:

NetEngine: High-performance routers for enterprise WAN and data center interconnects. CloudEngine: Data center switches designed for high-density, low-latency environments. AirEngine: Wireless access points (APs) for Wi-Fi 6 and beyond.

HiSecEngine: Security products, including firewalls and intrusion prevention systems. The option AREngine does not belong to the "Four Engines" lineup. It appears to be unrelated to Huawei's official datacom product categories.

References:

HCSA-Presales-IP Network Study Guide, Section: "Huawei Datacom Portfolio Overview." Huawei Product Catalog, Four Engines Framework.

NEW QUESTION 127

Huawei datacom product line covers six domains as follows: campus network, metro router, data center network, cyber security, network management, and backbone router.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei Datacom Product Line Overview:

Huawei's datacom product line provides comprehensive solutions across multiple domains to meet diverse customer needs.

Domains Covered by Huawei Datacom:

Campus Network: Solutions for enterprise campuses, including switches, Wi-Fi, and IoT integration.

Metro Router: Routers designed for metropolitan area networks (MANs).

Data Center Network: Solutions for high-performance data center networking, including switches and SDN controllers.

Cyber Security: Products and solutions for network security, including firewalls and intrusion detection systems.

Network Management: Tools for managing and monitoring networks, such as iMaster NCE.

Backbone Router: High-capacity routers for core and backbone networks.

Conclusion: The statement is TRUE, as Huawei's datacom product line indeed covers these six domains.

References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 1: Huawei Overview. Huawei Datacom Product Portfolio Documentation.

NEW QUESTION 128

An IPv6 address is expressed in dotted decimal notation, and an IPv4 address is expressed in colon hexadecimal notation.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

IPv4 addresses are written in dotted decimal notation (e.g., 192.168.1.1).

IPv6 addresses use colon-separated hexadecimal notation (e.g., 2001:db8::1).

The statement in the question is incorrect because IPv6 does NOT use dotted decimal notation; only IPv4 does.

IPv4 is 32-bit, while IPv6 is 128-bit, allowing for a much larger address space. Reference: HCSA-Presales-IP Network Official Documentation – IPv4 vs. IPv6 Addressing

NEW QUESTION 130

Which of the following statements is FALSE about Huawei AirEngine 5761-11W?

- A. It supports a device rate of 1.775 Gbps.
- B. It has no USB port.
- C. It has one GE uplink port and four GE electrical downlink ports.
- D. It supports the leader AP feature.

Answer: B

Explanation:

The Huawei AirEngine 5761-11W is a Wi-Fi 6 access point (AP) designed for enterprise networks. Let us analyze each statement:

It supports a device rate of 1.775 Gbps : This is true . The AirEngine 5761-11W supports a maximum device rate of 1.775 Gbps, making it suitable for high-speed wireless connectivity.

It has no USB port : This is false . The AirEngine 5761-11W does have a USB port, which can be used for IoT expansion or other purposes.

It has one GE uplink port and four GE electrical downlink ports : This is true . The device includes one Gigabit Ethernet (GE) uplink port and four GE electrical downlink ports for wired connections.

It supports the leader AP feature : This is true . The leader AP feature allows the device to act as a controller for other APs in small-scale deployments, simplifying network management.

Thus, the false statement is B . References:

Huawei AirEngine 5761-11W Product Documentation, HCSA-Presales-IP Network Documentation.

NEW QUESTION 131

Huawei NetEngine 8000 series' access routers can work at a temperature ranging from -40°C to +65°C and can be installed in outdoor cabinets.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Environmental Tolerance of Huawei NetEngine 8000 Series:

The Huawei NetEngine 8000 series is designed for robust performance in challenging environments, including extreme temperatures.

Temperature Range and Outdoor Installation:

These routers are certified to operate in temperatures ranging from -40°C to +65°C, making them suitable for deployment in outdoor cabinets or harsh conditions.

Conclusion: The statement is TRUE because the NetEngine 8000 series supports the specified temperature range and can be installed in outdoor cabinets.

References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 4: Router Product Portfolio. Huawei NetEngine 8000 Series Product Documentation.

NEW QUESTION 135

Huawei CE6863E-48S6CQ supports hardware-based BFD, minimum packet sending interval of 3.3s.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

The Huawei CE6863E-48S6CQ switch supports hardware-based Bidirectional Forwarding Detection (BFD), which enables rapid fault detection in the network.

However, the claim that the minimum packet sending interval is 3.3 seconds is incorrect.

Hardware-based BFD typically supports much shorter intervals, often in the range of milliseconds (e.g., 3.3 ms, not 3.3 seconds). This ensures fast detection of link failures and minimizes downtime.

Thus, the statement is FALSE due to the incorrect interval value. References:

Huawei CloudEngine CE6863E-48S6CQ Product Documentation, HCSA-Presales-IP Network Documentation.

NEW QUESTION 140

Redundancy is the guarantee of stable network operation and is one of the important factors to consider when selecting an aggregation switch. How many power modules does one Huawei CloudEngine S8700-10 have?

- A. 4
- B. 6
- C. 8
- D. 2

Answer: A

Explanation:

The Huawei CloudEngine S8700-10 is a high-performance aggregation switch designed for enterprise campus networks. It supports up to 4 power modules, which provide redundancy and ensure stable operation even in the event of a power module failure. Redundant power supplies are critical for maintaining network uptime and reliability, especially in mission-critical environments.

The other options (2, 6, and 8) do not match the specifications of the S8700-10. While some models in the S8700 series may support fewer or additional power modules, the S8700-10 specifically accommodates up to 4 power modules.

References:

Huawei CloudEngine S8700 Series Switch Hardware Guide, HCSA-Presales-IP Network Documentation.

NEW QUESTION 142

The major difference between Huawei S5731-H and S5731-S switches in software features is the VXLAN function.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

The S5731-H and S5731-S are part of Huawei's CloudEngine S series switches, but they differ in their software capabilities. Specifically:
S5731-H: Supports advanced features like VXLAN (Virtual Extensible LAN), which enables network virtualization and scalable overlay networks.

S5731-S: Lacks VXLAN support, making it suitable for simpler deployments without virtualization requirements.

This distinction is critical when selecting switches for environments that require advanced virtualization and cloud integration.

References:

HCSA-Presales-IP Network Study Guide, Section: "Huawei Campus Switch Models and Features."

Huawei CloudEngine S5731 Series Product Documentation.

NEW QUESTION 147

Huawei CloudEngine S12700E is Huawei's high-end campus modular switch. Which of the following are Huawei CloudEngine S12700E highlight features?

- A. Ultra-large buffer and HQoS scheduling, delivering optimal user experience of key applications
- B. Powerful slot forwarding capability, building Wi-Fi 6 high-speed channels
- C. Control and switching separation, on-demand configuration, and flexible capacity expansion
- D. Redundancy design for key components, ensuring 99.999% reliability

Answer: ABCD

Explanation:

The Huawei CloudEngine S12700E series is a high-end modular switch designed for enterprise campus networks. Below are the explanations for each highlighted feature:
Ultra-large buffer and HQoS scheduling, delivering optimal user experience of key applications: The S12700E series features a large buffer and advanced Hierarchical Quality of Service (HQoS) scheduling, ensuring smooth performance for critical applications even under heavy traffic conditions.

Powerful slot forwarding capability, building Wi-Fi 6 high-speed channels: The switch supports high-speed forwarding capabilities, making it ideal for supporting Wi-Fi 6 networks and handling the increased bandwidth demands of modern applications.

Control and switching separation, on-demand configuration, and flexible capacity expansion: The S12700E adopts a control-switching separation architecture, allowing users to configure resources on demand and expand capacity flexibly as needed.

Redundancy design for key components, ensuring 99.999% reliability: The switch includes redundant power supplies, fans, and control boards, ensuring high availability and reliability for mission-critical environments.

All four options are valid highlight features of the CloudEngine S12700E series. References:

Huawei CloudEngine S12700E Series Switch Product Documentation, HCSA-Presales-IP Network Documentation.

NEW QUESTION 149

Which of the following are characteristics of traditional IP routing and forwarding? (Select All that Apply)

- A. All routers need to know the network-wide routes.
- B. Each router needs to obtain the network layer information about the packet and selects routing entries for packet forwarding based on the longest match rule.
- C. It is connectionless and cannot provide good end-to-end QoS guarantee.
- D. It uses the hop-by-hop forwarding mode, in which a packet is decapsulated by all routers that receive the packet.

Answer: ABCD

Explanation:

Option A: In traditional IP routing, each router in the network must maintain a routing table that contains network-wide routes or at least the routes relevant to its operation. This ensures that packets can be forwarded correctly to their destination.

Option B: Traditional IP routing operates on the principle of the "longest match rule." When a router receives a packet, it examines the destination IP address and matches it against the entries in its routing table. The longest prefix match determines the next hop for the packet.

Option C: Traditional IP networks are inherently connectionless, meaning there is no dedicated path established between the source and destination before data transmission. This lack of connection-oriented mechanisms makes it challenging to guarantee Quality of Service (QoS) across the entire network.

Option D: In traditional IP networks, packets are forwarded using a hop-by-hop mechanism. Each router along the path decapsulates the packet, inspects its headers, and forwards it to the next hop based on its routing table.

References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 2: IP Routing Fundamentals. Huawei Networking Technology and Device (HNTD) Documentation.

NEW QUESTION 151

On a data communication network, the network layer header of a packet sent by the source node carries the network layer addresses of both the source and destination nodes of the packet. Network devices with the routing function maintain the routing table. When receiving the packet, which address carried in the network layer do these network devices read and search their routing tables for a matching entry? After one is found, the packet is forwarded accordingly.

- A. Source MAC
- B. Destination IP
- C. Source IP
- D. Destination MAC

Answer: B

Explanation:

In IP-based networks, routers use the destination IP address in the network layer header to determine the next hop for forwarding packets. The routing table contains entries that map destination IP addresses to outgoing interfaces or next-hop routers.

Source MAC and Destination MAC are Layer 2 (data link layer) addresses and are not used for routing decisions.

Source IP is irrelevant for routing, as the router focuses on delivering the packet to the destination IP address.

Thus, the correct answer is B, as routers use the destination IP address to make forwarding decisions.

References:

Huawei Routing Fundamentals Guide, HCSA-Presales-IP Network Documentation.

NEW QUESTION 156

Which of the following statements is FALSE about RR in Huawei's SD-WAN solution?

- A. It can implement communication between SD-WAN networks and legacy MPLS networks.
- B. It can be deployed on a physical AR router or software AR1000V vCPE.
- C. It can be deployed independently or co-deployed with the CPE at a site.
- D. It distributes VPN routes and tunnel information between CPEs based on VPN topology policies.

Answer: A

Explanation:

Understanding the Role of RR (Route Reflector):

In Huawei's SD-WAN solution, the Route Reflector (RR) plays a critical role in distributing routing information and ensuring efficient communication between CPEs (Customer Premises Equipment).

Analysis of Each Statement:

Option A: This is FALSE. The RR in Huawei's SD-WAN solution does not directly implement communication between SD-WAN networks and legacy MPLS networks. Instead, it focuses on distributing VPN routes and tunnel information within the SD-WAN overlay network. Communication with legacy MPLS networks typically requires additional integration mechanisms.

Option B: This is correct. The RR can be deployed on a physical AR router or as a virtualized instance (AR1000V vCPE).

Option C: This is correct. The RR can be deployed independently or co-located with a CPE at a site, depending on the network design.

Option D: This is correct. The RR distributes VPN routes and tunnel information between CPEs based on predefined VPN topology policies.

Conclusion: The FALSE statement is Option A. References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 9: SD-WAN Solutions. Huawei SD-WAN Solution Documentation.

NEW QUESTION 158

The path that IP packets pass through on an MPLS network is called a label switched path (LSP). An LSP is a bidirectional path that specifies the transmission direction of data flows.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

Comprehensive and Detailed in Depth Explanation: An MPLS (Multiprotocol Label Switching) network uses Label Switched Paths (LSPs) to forward packets. However, an LSP is unidirectional, not bidirectional. This means that the path is established in one direction only, from the ingress Label Edge Router (LER) to the egress LER. For bidirectional communication, two separate LSPs are required—one for each direction. This concept is critical in understanding MPLS architecture, as it ensures efficient packet forwarding based on labels rather than IP addresses. The unidirectional nature of LSPs allows for better traffic engineering and control over data flow in MPLS networks. References:

Huawei HCSA-Presales-IP Network Documentation: MPLS Fundamentals

RFC 3031: Multiprotocol Label Switching Architecture

NEW QUESTION 162

Wide area network (WAN) covers a large geographical area, ranging from dozens of kilometers to thousands of kilometers. It can connect multiple cities or even countries and provide long-distance communication to form an international large-scale network.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

A Wide Area Network (WAN) is designed to span large geographical areas, such as cities, regions, or even countries. WANs enable long-distance communication and are typically used to connect multiple Local Area Networks (LANs) or Metropolitan Area Networks (MANs). They rely on technologies like MPLS, SD-WAN, and leased lines to provide connectivity over vast distances.

The description provided in the question accurately reflects the characteristics and purpose of a WAN. Therefore, the statement is TRUE.

References:

Huawei WAN Solution Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 163

MACsec is an important feature to make sure security and reliability. Which of the following routers can support MACsec?

- A. NetEngine 8000 MIA
- B. NetEngine 8000 M6
- C. NetEngine 8000 MIC
- D. NetEngine 8000 F1A

Answer: BCD

Explanation:

MACsec (Media Access Control Security) is a Layer 2 encryption protocol that ensures secure and reliable communication over Ethernet links. Among Huawei's NetEngine 8000 series routers, the following models support MACsec:

NetEngine 8000 M6: High-performance router with MACsec support for secure WAN connections.

NetEngine 8000 MIC: Modular interface card-based router with MACsec capabilities. NetEngine 8000 F1A: Fixed configuration router supporting MACsec for secure access links.

The NetEngine 8000 MIA does not support MACsec, making it unsuitable for scenarios requiring Layer 2 encryption.

References:

HCSA-Presales-IP Network Study Guide, Section: "MACsec Support in NetEngine Routers."

Huawei NetEngine 8000 Series Product Documentation, Security Features.

NEW QUESTION 165

Which of the following are the mainstream models of Huawei CloudEngine 16800 series data center switches?

- A. CloudEngine 16812
- B. CloudEngine 16816
- C. CloudEngine 16804
- D. CloudEngine 16808

Answer: ABCD

Explanation:

The CloudEngine 16800 series is Huawei's flagship data center switch lineup, designed for high-performance, scalable, and reliable networking in modern data centers. The mainstream models in this series include:

CloudEngine 16812: A high-density switch with 12 line cards, supporting up to 576 x 400GE ports.

CloudEngine 16816: The largest model in the series, with 16 line cards, supporting up to 768 x 400GE ports.

CloudEngine 16804: A compact model with 4 line cards, suitable for smaller deployments or edge data centers.

CloudEngine 16808: A mid-sized model with 8 line cards, balancing performance and scalability for medium to large data centers.

These models cater to a wide range of use cases, from small-scale deployments to hyperscale cloud environments.

References:

HCSA-Presales-IP Network Study Guide, Section: "CloudEngine 16800 Series Overview." Huawei CloudEngine 16800 Series Product Documentation, Model Specifications.

NEW QUESTION 167

What are the common Huawei WLAN networking modes?

- A. Independent Fat AP networking
- B. Cloud management networking
- C. WAC + Fit AP networking
- D. AC-free self-networking of the leader AP

Answer: ABCD

Explanation:

Huawei WLAN solutions support multiple networking modes to adapt to different enterprise requirements:

(A) Independent Fat AP Networking (True): Each AP operates independently without a Wireless Access Controller (WAC). Suitable for small-scale networks.

(B) Cloud Management Networking (True): Uses Huawei CloudCampus to manage APs remotely via iMaster NCE-Campus. Ideal for large, multi-branch enterprises.

(C) WAC + Fit AP Networking (True): Centralized WAC (Wireless Access Controller) manages Fit APs, optimizing performance and security.

(D) AC-Free Self-Networking of the Leader AP (True): A leader AP acts as a mini-controller, managing other APs without a WAC. Used in small to medium networks.

Reference: HCSA-Presales-IP Network Official Study Guide, WLAN Networking Modes

NEW QUESTION 168

Which of the following statements are TRUE about fixed ports and cards of AR routers?

- A. LAN ports can be switched to WAN ports using the `undo portswitch` command.
- B. On some models, WAN ports can be switched to LAN ports.
- C. Layer 2 cards configured with VLANIF interfaces support simple Layer 3 forwarding, but do not support NAT, MPLS, IPsec, and HQoS.
- D. All Layer 2 cards support LAN/WAN switching.

Answer: ABC

Explanation:

Huawei's AR routers offer flexible configurations for fixed ports and modular cards, enabling them to adapt to various networking scenarios. Key points include:

LAN-to-WAN switching: LAN ports can be converted to WAN ports using the `undo portswitch` command, allowing greater flexibility in network design.

WAN-to-LAN switching: Some AR router models support converting WAN ports to LAN ports, depending on the hardware and software capabilities.

Layer 2 card limitations: Layer 2 cards configured with VLANIF interfaces can perform basic Layer 3 forwarding but lack advanced features like NAT, MPLS, IPsec, and HQoS.

The claim that all Layer 2 cards support LAN/WAN switching is incorrect. Only specific models and configurations support this functionality, making option D false.

References:

HCSA-Presales-IP Network Study Guide, Section: "AR Router Port and Card Configurations."
Huawei AR Router Product Documentation, Port Switching and Layer 2 Card Features.

NEW QUESTION 171

.....

Thank You for Trying Our Product

We offer two products:

1st - We have Practice Tests Software with Actual Exam Questions

2nd - Questions and Answers in PDF Format

H19-301_V3.0 Practice Exam Features:

- * H19-301_V3.0 Questions and Answers Updated Frequently
- * H19-301_V3.0 Practice Questions Verified by Expert Senior Certified Staff
- * H19-301_V3.0 Most Realistic Questions that Guarantee you a Pass on Your First Try
- * H19-301_V3.0 Practice Test Questions in Multiple Choice Formats and Updates for 1 Year

100% Actual & Verified — Instant Download, Please Click
[Order The H19-301_V3.0 Practice Test Here](#)