

HUAWEI

Exam Questions H19-301_V3.0

HCSA-Presales-IP Network Certification V3.0



NEW QUESTION 1

A Layer 2 switch provides only the Layer 2 switching function. In addition to this function, a Layer 3 switch supports routing and forwarding through a Layer 3 interface, such as a VLANIF interface.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Layer 2 Switches operate at the Data Link Layer (Layer 2) and forward packets based on MAC addresses.

Layer 3 Switches provide both Layer 2 switching and Layer 3 routing capabilities, allowing IP-based communication between VLANs via VLANIF interfaces (VLAN Interfaces).

VLANIF interfaces act as virtual interfaces assigned to VLANs, enabling inter-VLAN communication without an external router.

Reference: HCSA-Presales-IP Network Official Documentation – Layer 2 vs. Layer 3 Switches

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

Redundancy is the guarantee of network stable operation, which is one of the important factors to consider when selecting an aggregation switch. Huawei CloudEngine S8700 supports microsecond-level active/standby MPLI switchover, one-tenth the industry average.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Redundancy ensures network reliability by providing backup mechanisms to avoid single points of failure.

The Huawei CloudEngine S8700 switch offers:

Microsecond-level active/standby MPLI switchover, which is 10 times faster than the industry average.

High availability through redundant components, such as dual power supplies, dual main processing units (MPUs), and hot-swappable fans.

Reference: HCSA-Presales-IP Network Official Documentation – CloudEngine S8700 Redundancy Features

NEW QUESTION 4

Which of the following statements are TRUE about Huawei's wireless backhaul solution for rail transportation?

- A. The handover delay can be as low as 30 ms.
- B. The solution can be used to carry the train control signal system.
- C. Backhaul is unavailable when a train is traveling at 160 km/h.
- D. Highly reliable active-active links are available.

Answer: ABD

Explanation:

Comprehensive and Detailed in Depth Explanation:

Huawei's wireless backhaul solution for rail transportation is designed to provide high reliability and low latency for mission-critical applications such as train control systems.

Option A: The handover delay in Huawei's solution can indeed be as low as 30 ms. This ensures seamless connectivity during transitions between base stations, which is crucial for real-time applications like train control signaling.

Option B: The solution supports carrying train control signal systems, ensuring safe and efficient operations.

Option C: This statement is incorrect. Huawei's wireless backhaul solution supports high-speed mobility, including trains traveling at speeds up to 160 km/h or higher, without losing connectivity.

Option D: Active-active links are a key feature of the solution, providing redundancy and ensuring high reliability even in challenging environments.

References:

Huawei HCSA-Presales-IP Network Documentation: Wireless Backhaul Solutions for Rail Transportation

Huawei Case Studies: Rail Transportation Networks

NEW QUESTION 5

Huawei firewall has extensive security databases and comprehensive security detection capabilities. How many intrusion prevention signatures can Huawei firewalls support at most?

- A. 24,000+

- B. 30,000+
- C. 18,000+
- D. 12,000+

Answer: A

Explanation:

Huawei next-generation firewalls use AI-driven threat intelligence and support: Up to 24,000+ intrusion prevention signatures. Real-time threat detection using deep packet inspection (DPI). AI-powered anomaly detection and automated response mechanisms. Reference: HCSA-Presales-IP Network Official Study Guide, Huawei Firewall Security Features

NEW QUESTION 6

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 7

Huawei firewalls have been listed in the Gartner Magic Quadrant every year since 2013, for nine consecutive years.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei firewalls, particularly the USG series, have consistently demonstrated strong performance in terms of innovation, functionality, and market presence. As a result, they have been included in the Gartner Magic Quadrant for Network Firewalls every year since 2013, achieving recognition for nine consecutive years.

This consistent inclusion reflects Huawei's leadership in the firewall market and its ability to meet evolving customer requirements.

Thus, the statement is TRUE. References:

Gartner Magic Quadrant for Network Firewalls, HCSA-Presales-IP Network Documentation.

NEW QUESTION 8

The Adaptive Security Engine (ASE) is used to dynamically allocate CPU resources to service modules, maximizing resource utilization. In addition, component-based function delivery is available.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei's Adaptive Security Engine (ASE) is a key feature in its security products, such as firewalls. ASE dynamically allocates CPU resources to different service modules (e.g., firewall, intrusion prevention, antivirus) based on real-time traffic demands. This ensures optimal resource utilization and performance. Additionally, ASE supports component-based function delivery, allowing administrators to enable or disable specific security features as needed. This flexibility enhances scalability and reduces unnecessary resource consumption.

The statement accurately describes the functionality of ASE, making it TRUE. References:

HCSA-Presales-IP Network Study Guide, Section: "Adaptive Security Engine Features." Huawei Security Product Documentation, ASE Overview.

NEW QUESTION 9

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 10

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 10

In the hyper-converged data center network solution, which of the following is responsible for analyzing traffic in the data center network and quickly locating faults?

- A. VAS controller
- B. Network controller
- C. Network analyzer
- D. Computing manager

Answer: C

Explanation:

In Huawei's hyper-converged data center network solution, the network analyzer plays a critical role in monitoring and analyzing traffic flows. It provides real-time insights into network performance, identifies anomalies, and helps locate faults quickly. Other components serve different purposes:

VAS controller: Manages value-added services like firewalls and load balancers. Network controller: Handles overall network orchestration and policy enforcement.

Computing manager: Focuses on compute resource allocation and optimization.

The network analyzer is specifically designed for traffic analysis and fault detection, making it the correct answer.

References:

HCSA-Presales-IP Network Study Guide, Section: "Hyper-Converged Data Center Components."

Huawei Hyper-Converged Solution Documentation, Network Analyzer Role.

NEW QUESTION 13

Wired and wireless convergence is one of the trends of campus network development. Switches with WAC cards can implement Wired and Wireless Network Convergence at both hardware and software levels.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Wired and wireless convergence is a key trend in modern campus networks, enabling unified management and seamless connectivity across wired and wireless devices. Huawei switches equipped with Wireless Access Controller (WAC) cards integrate wired and wireless functions into a single platform. This integration provides:

Hardware-level convergence: Combines switching and wireless control capabilities in one device.

Software-level convergence: Enables centralized management, policy enforcement, and traffic optimization for both wired and wireless networks.

This approach simplifies network architecture, reduces costs, and improves operational efficiency, making it a preferred solution for converged campus networks.

References:

HCSA-Presales-IP Network Study Guide, Section: "Wired and Wireless Convergence Trends."

Huawei Campus Network Solution Documentation, WAC Card Features.

NEW QUESTION 15

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

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

Answer: A

Explanation:

"One-click fast scheduling, cloud-network coordinated scheduling" refers to the ability to provision services quickly and efficiently using advanced technologies like SRv6 (Segment Routing over IPv6). This feature enables agile service rollout by automating the configuration and deployment of network services across cloud and WAN environments. With SRv6, services can be provisioned within minutes, significantly reducing the time required for manual configuration and ensuring rapid adaptation to changing business needs.

The other options describe different features of Huawei's solutions but do not directly align with the concept of "one-click fast scheduling." For example:

Option B refers to network diagnostics and troubleshooting capabilities.

Option C highlights resource optimization through SDN and intelligent algorithms. Option D focuses on network slicing, which is a separate feature for enhancing network flexibility.

Thus, the correct answer is A, as it directly addresses the concept of fast and coordinated scheduling in cloud-network environments.

References:

Huawei CloudWAN 3.0 Solution White Paper, HCSA-Presales-IP Network Documentation.

NEW QUESTION 18

Which of the following are involved in the evolution phases for a typical data center?

- A. Virtualization
- B. Centralized
- C. Multi-site and multi-cloud
- D. Distributed

Answer: ABCD

Explanation:

The evolution of atypical data center involves several key phases, each addressing specific technological and operational advancements:

Virtualization: The first major phase, where physical resources are abstracted into virtual machines (VMs) to improve resource utilization and flexibility.

Centralized: Early data centers were centralized, with all resources located in a single facility for easier management.

Multi-site and multi-cloud: Modern data centers extend across multiple locations and integrate with public/private clouds for scalability and redundancy.

Distributed: Distributed architectures enable edge computing and decentralized processing, reducing latency and improving performance for geographically dispersed users.

These phases reflect the progression from traditional, hardware-centric designs to modern, software-defined, and cloud-integrated infrastructures.

References:

HCSA-Presales-IP Network Study Guide, Section: "Data Center Evolution Phases." Huawei Data Center Solution Documentation, Evolution Trends.

NEW QUESTION 20

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

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

Answer: A

Explanation:

The Huawei CloudEngine S5735-L series switches are entry-level switches designed for small to medium-sized networks. These switches do not support dual power modules, as they are intended for environments where redundancy is not a primary requirement.

In contrast:

The S5732-H, S5731-S24P4X, and S5736-S24T4XC switches all support dual power modules, providing redundancy and ensuring stable operation in more demanding environments.

Thus, the switch that does not support two power modules is the S5735-L. References:

Huawei CloudEngine S5735-L Series Switch Hardware Guide, HCSA-Presales-IP Network Documentation.

NEW QUESTION 23

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 25

In Huawei's SD-WAN solution, the RR is a key node and does not participate in service traffic forwarding. However, if the RR fails, service traffic on the entire network will be interrupted. Therefore, the RR is typically deployed in redundancy mode.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

In Huawei's SD-WAN solution, the Route Reflector (RR) plays a critical role in distributing routing information across the network. However, the RR does not directly participate in service traffic forwarding. Its primary function is to facilitate efficient route exchange between SD-WAN nodes. If the RR fails, it may temporarily disrupt the distribution of routing updates, but it will not interrupt service traffic on the entire network. Service traffic continues to flow through established paths until the RR is restored or redundancy mechanisms take effect. To ensure high availability, the RR is often deployed in redundancy mode, but the claim that its failure will interrupt all service traffic is FALSE .
References:
Huawei SD-WAN Solution Architecture, HCSA-Presales-IP Network Documentation.

NEW QUESTION 29

Which of the following interface types are supported by WAN-side links of Huawei SD-WAN routers?

- A. LTE
- B. 5G
- C. FC
- D. VDSL

Answer: ABD

Explanation:

Huawei SD-WAN routers support multiple WAN-side link types to provide flexible connectivity options:
(A) LTE (True): Many Huawei SD-WAN routers include LTE interfaces for mobile WAN connectivity, ensuring reliable backup connections.
(B) 5G (True): Next-generation routers support 5G connectivity, offering higher bandwidth and lower latency than LTE.
(C) FC (False): Fibre Channel (FC) is a technology used for storage networks (SANs), not for WAN connectivity in SD-WAN routers.
(D) VDSL (True): Some Huawei routers support VDSL interfaces for DSL-based broadband connections, commonly used in legacy networks.
Reference: HCSA-Presales-IP Network Official Study Guide, Huawei SD-WAN Router WAN Interfaces Section

NEW QUESTION 31

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 34

MOX is a general term for various ministries, one of government WAN scenarios and market opportunities for routers. In the MOX government network scenario, which Huawei model is the backbone router we normally recommend?

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

Answer: C

Explanation:

Overview of MOX Government Network Scenario:
MOX refers to government ministries and organizations requiring robust, scalable, and secure WAN solutions for their backbone networks.
Recommended Backbone Router:
The NetEngine 8000 X series is specifically designed for high-capacity, high-reliability backbone networks. It supports advanced features like SRv6, FlexE, and large-scale routing, making it ideal for government WANs.
Conclusion: The correct answer is Option C, as the NetEngine 8000 X is the recommended backbone router for MOX scenarios. References:
HCSA-Presales-IP Network V3.0 Training Material, Chapter 4: Router Product Portfolio. Huawei NetEngine 8000 Series Product Documentation.

NEW QUESTION 37

Huawei NetEngine 8000 MIA and NetEngine 8000 M6 routers are 220 mm in depth.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

The Huawei NetEngine 8000 MIA and NetEngine 8000 M6 routers are compact, high-performance routers, but their depth is not 220 mm. These routers are designed for high-capacity edge computing with ultra-high-density interfaces. The actual depth varies by model and configuration but exceeds 220 mm due to high-performance hardware requirements. Reference: HCSA-Presales-IP Network Official Study Guide, NetEngine 8000 Series Specifications

NEW QUESTION 42

Which of the following protocols operate at the network layer? (Select All that Apply)

- A. IPv6
- B. ICMPv6
- C. IPv4
- D. OSPF
- E. ICMP

Answer: ABCE

Explanation:

Understanding the Network Layer:

The network layer (Layer 3 of the OSI model) is responsible for end-to-end packet delivery, including routing and addressing. Protocols operating at this layer handle logical addressing and path determination.

Explanation of Each Protocol:

IPv6: The next-generation Internet Protocol, which operates at the network layer to provide addressing and routing for packets.

ICMPv6: Internet Control Message Protocol version 6, used for error reporting and diagnostic functions in IPv6 networks. It operates at the network layer.

IPv4: The current widely-used Internet Protocol, which operates at the network layer to provide addressing and routing for packets.

OSPF: Open Shortest Path First is a dynamic routing protocol that operates at the network layer to exchange routing information between routers.

ICMP: Internet Control Message Protocol, used for error reporting and diagnostic functions in IPv4 networks. It operates at the network layer.

Conclusion: IPv6, ICMPv6, IPv4, and ICMP all operate at the network layer. OSPF is also correct because it is a routing protocol that works at Layer 3.

References:

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

NEW QUESTION 43

Among the core values of the hyper-converged data center network solution, which of the following improvements is the result of full-lifecycle automation?

- A. 100% unleashing of computing power
- B. TTM reduced by 90%
- C. Proactive prediction of 90% of faults
- D. Storage performance improved by 90%

Answer: B

Explanation:

Hyper-converged data center network solutions emphasize automation across the entire lifecycle, from deployment to operations. Below is an analysis of each option:

100% unleashing of computing power : While automation can optimize resource allocation, achieving 100% utilization of computing power is not directly tied to full-lifecycle automation.

TTM reduced by 90% : Full-lifecycle automation streamlines processes such as provisioning, configuration, and scaling, significantly reducing Time-to-Market (TTM). This is a direct benefit of automation.

Proactive prediction of 90% of faults : Proactive fault prediction is typically achieved through AI-driven analytics, not solely through automation.

Storage performance improved by 90% : Improvements in storage performance are more closely related to advancements in hardware (e.g., NVMe over Fabrics) and software optimizations, rather than automation.

Thus, the correct answer is B , as full-lifecycle automation primarily reduces TTM. References:

Huawei Hyper-Converged Data Center Network Solution Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 44

Transportation industry is one of the key industries Huawei CloudWAN solution and products focus on. Which is not the railway services and market opportunities for routers?

- A. Integrated information network
- B. Vehicle-ground communication network
- C. Interconnection load balancing between backbone clouds
- D. Railway signal bearer network

Answer: C

Explanation:

Huawei's CloudWAN solutions target various railway services and market opportunities. Below is an analysis of each option:

Integrated information network : This refers to the unified network infrastructure that integrates multiple railway systems, such as passenger information, ticketing, and security. It is a key focus area for Huawei routers.

Vehicle-ground communication network : This involves communication between trains and ground stations, enabling real-time monitoring, diagnostics, and control. It is a critical railway service supported by Huawei routers.

Interconnection load balancing between backbone clouds : This is more relevant to cloud data center interconnections rather than railway-specific services. It is not a primary focus for railway services.

Railway signal bearer network : This refers to the network that carries signaling and control information for safe train operations. It is a core railway service supported by Huawei routers.

Thus, the correct answer is C , as interconnection load balancing between backbone clouds is not directly related to railway services.

References:

Huawei CloudWAN Solution for Transportation Industry, HCSA-Presales-IP Network Documentation.

NEW QUESTION 46

Unlike managing a device through a console port, managing a device through Telnet does not require connecting to the device with a cable. The only requirement is that the Telnet client has a reachable address and can communicate with the Telnet service port of the device. Which kind of address should the client have?

- A. VLAN
- B. AS
- C. MAC

D. IP

Answer: D

Explanation:

Understanding Telnet: Telnet is a protocol used for remote management of network devices. Unlike console port management, which requires a physical connection, Telnet operates over the network.

Address Requirement: For Telnet communication to occur, the client must have an IP address. This is because Telnet relies on the TCP/IP protocol suite, and communication is

established using IP addresses. Why Not Other Options?

VLAN: A VLAN (Virtual Local Area Network) is a logical segmentation of a network but does not directly represent an address for communication.

AS: An Autonomous System (AS) is a collection of IP networks under a single administrative domain, not an address type.

MAC: A MAC address is a hardware identifier used at Layer 2 of the OSI model. While important for local network communication, it is not sufficient for Telnet, which operates at Layer 3.

Conclusion: The correct answer is IP, as it is the fundamental addressing scheme required for Telnet communication.

References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 5: Network Management Protocols.

Huawei Enterprise Networking Product Documentation.

NEW QUESTION 48

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 50

Which of the following statements are TRUE about iMaster NCE in terms of management and control?

- A. Manages and controls traditional devices through SNMP.
- B. Manages and controls traditional devices through the CLI.
- C. Manages and controls SDN-capable networks through NETCONF (based on the YANG model).

Answer: AC

Explanation:

iMaster NCE (Huawei's Network Cloud Engine) is an intent-driven network management and control system designed for SDN networks.

It supports both traditional and SDN-capable networks:

SNMP is used to manage and control traditional (non-SDN) devices.

NETCONF + YANG is used to manage SDN-capable devices in a structured and automated manner.

CLI is not a preferred method in SDN environments as it lacks automation and scalability. Reference: HCSA-Presales-IP Network Official Documentation – iMaster NCE Management Capabilities

NEW QUESTION 54

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 55

Which of the following are factors affecting the wireless rate (throughput) of a Wi-Fi AP? (Select All that Apply)

- A. CPU performance
- B. SNR
- C. Spatial stream
- D. Frequency bandwidth

Answer: ABCD

Explanation:

Factors Affecting Wireless Rate:

The wireless rate (throughput) of a Wi-Fi AP depends on multiple factors, including hardware capabilities, environmental conditions, and configuration settings.

Explanation of Each Factor:

CPU performance: The AP's CPU processes data packets and performs tasks like encryption/decryption. Higher CPU performance enables better throughput.

SNR (Signal-to-Noise Ratio): A higher SNR indicates a stronger signal relative to noise, resulting in better data rates.

Spatial stream: Wi-Fi 6 supports multiple spatial streams (MIMO), increasing throughput by transmitting multiple data streams simultaneously.

Frequency bandwidth: Wider channels (e.g., 20 MHz, 40 MHz, 80 MHz, or 160 MHz) allow higher data rates but may increase interference in crowded environments.

Conclusion: All four options are factors that affect the wireless rate of a Wi-Fi AP. References:

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

NEW QUESTION 56

On a large-scale network consisting of multiple ASs, which protocol is required to exchange routes between these ASs?

- A. Static routing
- B. BGP
- C. IS-IS
- D. OSPF

Answer: B

Explanation:

To exchange routes between Autonomous Systems (ASs), BGP (Border Gateway Protocol) is used. BGP is specifically designed for inter-AS routing and supports scalable and policy-based route distribution across large networks.

Static routing : Requires manual configuration and is not scalable for large networks.

IS-IS and OSPF : These are Interior Gateway Protocols (IGPs) used for intra-AS routing, not inter-AS routing.

Thus, the correct answer is B , as BGP is the standard protocol for inter-AS route exchange.

References:

Huawei BGP Protocol Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 61

Huawei CloudEngine 12700E is modular design whose fan modules support hot swapping. Installation or removal of a fan module does not affect other fans.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

The Huawei CloudEngine 12700E series switches are designed with modularity and high reliability in mind. One of their key features is the ability to perform hot swapping of components, including fan modules. Hot swapping allows users to install or remove fan modules without shutting down the switch or affecting the operation of other fan modules. This ensures continuous cooling and minimizes downtime during maintenance.

The statement is therefore TRUE , as it accurately reflects the capabilities of the CloudEngine 12700E series.

References:

Huawei CloudEngine 12700E Series Switch Hardware Guide, HCSA-Presales-IP Network Documentation.

NEW QUESTION 64

What O&M services does iMaster NCE-FabricInsight provide based on knowledge graph modeling?

- A. "1-3-5" troubleshooting
- B. Data plane verification (DPV)
- C. Network snapshot comparison
- D. Network health evaluation

Answer: ABCD

Explanation:

Huawei's iMaster NCE-FabricInsight is an intelligent O&M platform for data center networks that leverages knowledge graph modeling to enhance network management and troubleshooting. Below is an explanation of each option:

"1-3-5" troubleshooting : This refers to a structured approach for fault detection, isolation, and resolution within 1 minute of fault detection, 3 minutes of fault location, and 5 minutes of fault recovery. FabricInsight uses AI-driven analytics to achieve this level of efficiency. Data plane verification (DPV) : DPV ensures the correctness of the data forwarding path by verifying configurations and detecting anomalies in real time. This helps prevent issues like misconfigurations or routing errors.

Network snapshot comparison : This feature allows administrators to compare network states at different points in time, helping identify changes that may have caused performance degradation or faults.

Network health evaluation : FabricInsight continuously monitors the network and evaluates its health status, providing insights into potential risks and optimization opportunities.

All four options are valid O&M services provided by iMaster NCE-FabricInsight. References:

Huawei iMaster NCE-FabricInsight Solution Overview, HCSA-Presales-IP Network Documentation.

NEW QUESTION 69

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 73

Enterprise networks, no matter campus networks or DCNs, are facing a lot of potential attacks. What are the common types of attack methods we are facing?

- A. Remote code execution
- B. Cross-site attacks
- C. Command line injection
- D. Brute-force attacks

Answer: ABCD

Explanation:

Enterprise networks are vulnerable to a variety of cyberattacks, including:

Remote code execution:Attackers exploit vulnerabilities to execute malicious code on target systems, potentially gaining full control.

Cross-site attacks:Includes Cross-Site Scripting (XSS) and Cross-Site Request Forgery (CSRF), where attackers manipulate web applications to steal data or perform unauthorized actions.

Command line injection:Attackers inject malicious commands into input fields, compromising system integrity.

Brute-force attacks:Attackers attempt to guess passwords or encryption keys through repeated trial-and-error attempts.

These attack methods highlight the importance of implementing robust security measures, such as firewalls, intrusion detection/prevention systems, and regular patching. References:

HCSA-Presales-IP Network Study Guide, Section: "Common Cyberattack Methods." Huawei Security Solution Documentation, Threat Landscape Overview.

NEW QUESTION 77

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 78

In order to provide customers a fully-wireless experience, break down boundaries, and inspire enterprise innovation, Huawei developed a lot of advanced Wi-Fi technologies. In the face of common signal blind spots problem, which key technology does Huawei Wi-Fi solution use to achieve zero signal blind spot?

- A. Dynamic frequency assignment (DFA)
- B. Unique AI roaming algorithm
- C. Unique dynamic-zoom smart antenna
- D. 6 GHz frequency band

Answer: C

Explanation:

Huawei Wi-Fi 6 solutions eliminate signal blind spots using their "Unique Dynamic-Zoom Smart Antenna" technology.

(C) True – Dynamic-Zoom Smart Antenna:

Automatically adjusts antenna beamforming based on terminal location. Improves signal coverage and reduces interference in complex environments. Ensures seamless roaming across APs with stronger signal stability.

Other options:

(A) DFA (False): DFA optimizes frequency selection but does not eliminate signal blind spots.

(B) AI Roaming Algorithm (False): Enhances handover between APs, but does not directly eliminate blind spots.

(D) 6 GHz Band (False): Provides more spectrum, but coverage depends on the AP's antenna design.

Reference: HCSA-Presales-IP Network Official Study Guide, Huawei Wi-Fi 6 Technologies Section

NEW QUESTION 79

Huawei keeps innovating and advancing datacom technologies, with 26 years of expertise. Huawei has more than 11,000 R&D staff.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei has been a leader in the telecommunications and networking industry for over two decades. The company invests heavily in research and development (R&D), with over 11,000 R&D staff dedicated to advancing data communication technologies. This extensive R&D effort has enabled Huawei to innovate across various domains, including routing, switching, wireless, and security. The claim aligns with Huawei's official statements about its R&D capabilities and commitment to technological advancement.

References:

HCSA-Presales-IP Network Study Guide, Section: "Huawei's R&D Investment and Innovation."

Huawei Annual Report, R&D Statistics and Achievements.

NEW QUESTION 84

Which of the following are involved in the evolution phases for a typical data center?

- A. Centralized
- B. Multi-site and multi-cloud
- C. Distributed
- D. Virtualization

Answer: ABCD

Explanation:

The evolution of data centers has progressed through several distinct phases, driven by advancements in technology and changing business requirements. Below is an analysis of each phase:

Centralized : Early data centers were centralized, with all resources (servers, storage, and networking) located in a single physical location. This model was simple but lacked scalability and flexibility.

Multi-site and multi-cloud : Modern data centers often span multiple physical locations and integrate with public, private, and hybrid clouds. This phase emphasizes distributed architectures and cloud-native applications.

Distributed : As workloads grew, data centers evolved into distributed models, where resources are spread across multiple sites to improve redundancy, scalability, and performance.

Virtualization : Virtualization technologies enabled the abstraction of physical resources, allowing multiple virtual machines (VMs) or containers to run on a single physical server. This phase significantly improved resource utilization and flexibility.

All four options represent key phases in the evolution of data centers. References:

Huawei Data Center Network Evolution White Paper, HCSA-Presales-IP Network Documentation.

NEW QUESTION 88

The AR6300 provides high reliability and supports dual SRUs, dual power supplies, and redundant fans.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Huawei AR6300 routers are high-reliability enterprise routers designed for mission-critical applications.

Key features:

Dual SRUs (Service Routing Units) for redundancy. Dual power supplies to ensure continuous operation.

Redundant fans to prevent overheating and hardware failure.

Reference: HCSA-Presales-IP Network Official Documentation – AR6300 Router High-Availability Features

NEW QUESTION 93

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?

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

Answer: ABCE

Explanation:

Huawei's CloudWAN 3.0 solution introduces several innovative features to modernize wide-area networks (WANs):

One-click fast scheduling: Simplifies resource allocation and improves efficiency using SDN and intelligent algorithms.

One-fiber multipurpose transport: Enables multiple services (e.g., Internet, private lines) to share a single fiber, reducing costs.

One-network wide connection: Provides seamless connectivity across diverse locations and devices.

One-hop cloud access: Ensures direct and efficient access to cloud services, reducing latency.

The option "One-click maintenance" is not explicitly highlighted as a key feature of CloudWAN 3.0. While maintenance tools exist, they are not marketed as a core highlight of this solution.

References:

HCSA-Presales-IP Network Study Guide, Section: "CloudWAN 3.0 Key Features." Huawei CloudWAN Solution Documentation, Intelligent Cloud-Network Era.

NEW QUESTION 98

Huawei enterprise security product portfolio comprises many products. Which of the following security products are included?

- A. AntiDDoS
- B. Modular firewall
- C. SecoManager Security Controller
- D. Desktop firewall

Answer: ABC

Explanation:

Huawei offers a comprehensive enterprise security portfolio, including:

(A) AntiDDoS (True): Protects against Distributed Denial-of-Service (DDoS) attacks.

(B) Modular Firewall (True): Provides scalable, high-performance security for enterprise networks.

(C) SecoManager Security Controller (True): A centralized security management platform.

(D) Desktop Firewall (False): Not part of Huawei's enterprise security product portfolio. Reference: HCSA-Presales-IP Network Official Study Guide, Huawei Security Products Overview

NEW QUESTION 102

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 105

Huawei's data center autonomous driving network can locate faults within 1 minute, analyze faults within 3 minutes, and rectify faults within 5 minutes.

- A. TRUE
- B. FALSE

Answer: A

Explanation:

Fault Management in Autonomous Driving Networks:

Huawei's autonomous driving network leverages AI and machine learning to achieve rapid fault detection, analysis, and resolution.

Fault Management Metrics:

Locate faults within 1 minute: AI-driven tools quickly identify the root cause of issues. Analyze faults within 3 minutes: Advanced analytics provide detailed insights into the nature and impact of faults.

Rectify faults within 5 minutes: Automated remediation workflows resolve issues promptly, minimizing downtime.

Conclusion: The statement is TRUE because Huawei's autonomous driving network meets these fault management metrics.

References:

HCSA-Presales-IP Network V3.0 Training Material, Chapter 7: Data Center Solutions. Huawei Autonomous Driving Network White Paper.

NEW QUESTION 109

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 110

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 115

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 118

Wi-Fi standards are formulated by IEEE 802.11 working groups. Huawei serves as the chair of the 802.11ax Working Group.

- A. TRUE
- B. FALSE

Answer: B

Explanation:

While Huawei is a major contributor to the development of Wi-Fi standards and actively participates in IEEE 802.11 working groups, it does not serve as the chair of the 802.11ax Working Group. The 802.11ax standard, also known as Wi-Fi 6, was developed under the leadership of the IEEE 802.11 working group, with contributions from multiple vendors and organizations. Huawei has played a significant role in advancing Wi-Fi technologies, but the claim that it chairs the 802.11ax Working Group is incorrect.

References:

HCSA-Presales-IP Network Study Guide, Section: "Wi-Fi Standards and IEEE Contributions."

IEEE 802.11ax Standard Documentation, Working Group Leadership.

NEW QUESTION 123

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

Answer: C

Explanation:

Overview of AirEngine Products:

Huawei's AirEngine series includes Wi-Fi 6 access points (APs) designed for high-density and high-performance wireless networks.

Analysis of Each Statement:

Option A: The AirEngine 5762-12 supports a maximum device rate of 2.976 Gbps, not 1.775 Gbps.

Option B: The AirEngine 5762-12SW does support the leader AP feature, which simplifies network management.

Option C: The AirEngine 5761-11 has 2.5GE ports, making it suitable for high-bandwidth applications.

Option D: The AirEngine 6761-21 supports a device rate of 5.375 Gbps, not 3.55 Gbps. Conclusion: The correct statement is Option C.

References:

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

NEW QUESTION 126

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 130

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